Mekelle University

College of Business and Economics

Department of Management

Assessment of Planning and Implementation of Transportation Service Delivery in the Ethiopian Armed Forces of Bure Front

(A Case Study of the 6th Serdo Mechanized Division Transport Department)

By

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Declaration

I, the undersigned hereby declare that this thesis entitled "Assessment of Planning and Implantation of Transportation Service Delivery in the Ethiopian Armed Forces of Bure Front "A case Study of the 6th Serdo Mechanized Division Transport Department" Submitted in partial fulfillment of the requirements for the award of the degree of MBA to the College of Business and Economics, Mekelle University, through the Department of Management, is an authentic work carried out by myself. The matter embodied in this project work has not been submitted earlier for award of any degree or diploma, fellowship or any other similar titles to any other university or institutions and that all the source materials used for the thesis have been dully acknowledged.

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Certification

This is to certify that this thesis entitled" Assessment of planning and Implantation of Transportation Service Delivery in the Ethiopian Armed Forces of Bure Front ("A case Study of the 6th serdo mechanized Division Transport Department") Submitted in partial fulfillment of the requirement for the award of the degree of MA, in Development Studies to the college of Business and Economics, Mekelle University, through the Department of Management, done by Mebrahtu Hauilu ID. No.FCBE/Ps 053/02 is carried out by him under our guidance.

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Abstract

This thesis investigates planning and implementation process of transportation service delivery of the 6th Mechanized Division in Bure Front. The main purpose of the study is to explore the main problems and possible solutions of planning and implementation process of transport service delivery of the Division. This study employs the mixed strategy of quantitative and qualitative methods. In the sampling design, 110 respondents were selected through quota sampling to include line officers, noncommissioned officers and private soldiers. The desired data are collected through questionnaires and focus group discussions. Descriptive analyses are employed to evaluate the performance of the Department's plan and its implementations. Software Package for Social Science (SPSS) technique is used to facilitate the descriptive analyses. The empirical results are analyzed in relation to theories and the practices on the ground. The finding of the study reveal that there are drawbacks of the leadership in their knowledge, skills and capabilities to design appropriate plans based on the governing principles. In the implementation of the plan the main problems identified are that the plans do not go well into operation. Moreover, service provisions are not coordinated, responsive and flexible together with existence of weak controlling system. These problems are aggravated by poor maintenance, shortage of spare parts and poor quality of roads. All these problems resulted in dissatisfactions of the users. Capacity building of the leadership ; applications of the basic principles of planning are recommended to be the possible remedies of the problems of planning and implementations of transport service delivery in the sixth Serdo Mechanized Division.

Key words: Planning, scheduling and Controlling, deployment, implementation, military transportation, service delivery.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Military Transportation System is designed to move people, goods and services efficiently, effectively, economically and safely from one point on the earth's surface to another (Cova and Conger, 2004). Transportation services involve the movement of people, goods, and services in planned manner. The success of military operations and campaigns depend on reliable, effective, and timely deployment of forces, equipment, and on continuous support during the entire campaign. A critical part of this support is a transportation logistics infrastructure that would manage, coordinate, and optimize transportation resource usage; guarantee visibility over operations; and react to unexpected events in order to avoid disruption of service. This transportation infrastructure is called a Transportation System (Marcel.et al, 1997)**.**

A transportation system is composed of three basic elements: (1) the Mode operations; (2) the Terminal Operations**;** and the (3) Movement Control**.** The movement control is the critical components of the system. It coordinates the transportation assets of all modes as well as terminal usage. It refers to the process of planning, organizing, scheduling, and controlling transportation assets, and maintaining flexibility to assist commanders and operations staffs in force tracking as movement control (Smith, et al, 1996). According to this definition, the movement control process involves planning, apportioning transportation, allocation transportation, de-conflicting priorities, validation of requests, coordination and force tracking. A request for moving personnel or cargo in a military operation is a movement requirement**.** Movement requirements are established by the competent authority and can be fulfilled using one or more mode of transportation**.**

Movement requirements can be generated as a result of transportation needs to execute routine daily military and civil operations during peace time; and can be generated to support military exercises or to support war time and contingency operations. Therefore, movement control can be classified as crisis action strategic movement control and peace time movement control**.** This would allow transportation personnel to be trained for wartime operations during peacetime routine daily activities. The main difference between peacetime and wartime operations would be related to volume, intensity and its plan. The planning process however, is considerably different. The planning and execution of transportation activities is affected by the nature of the military operation or campaign being performed.

During a military campaign, there could be four phases or types of transportation activities: deployment that corresponds to the relocation of forces and material to the area of operations; sustainment that is defined as the provision of personnel, logistics, and other support required to maintain and prolong operations or combat until accomplishment or revision of the mission objectives (Tate, A., 1997); evacuation of patients, prisoners of war, and non-combatant personnel from the area of operations to a medical facility or to a safe area; and re-deployment defined as the transfer of a unit, an individual, or supplies deployed in one area to another area, or to another location within the area, or to the zone of interior for the purpose of further deployment(ibid). Therefore, Transportation service and Passenger services in Military are undertaken to support military operations and force projection. According to (Gueret et al, 2003) force projection means fast and massive transportation of military equipment and logistical items from a set of bases to a set of destinations.

The planning for movement control follows different processes according to the focus and nature of operations. The two main process types are deliberate planning and crisis action planning**.** The deliberate planning process focuses on the time-phasing of movements and the assigning of transportation resources to support initial deployment for a set period.The crisis action planning differs from deliberate planning as a result of the small amount of

time available to reach allocation, scheduling, and identification of threats to transportation assets. There for Transportation planning is determining what must be moved, where and when it must be moved, and the best way to move it (Mosley, 1990). The planner must pay attention to detail and proper implementation of the plan.

The changing nature of modern warfare requires Army forces to be strategically responsive to a wide range of threats, while economically maximizing the Army's effectiveness (Field Manual 4-0, 2003). Field Manual 3-0 describes responsiveness, flexibility and economy are key combat service support (CSS) characteristics that enable combat service support (CSS) forces to support and execute operations more swiftly than their opponents. To do so transportation especially motor transportation plays a key role for this effectiveness. Agile Army transportation, which plays key role in combat forces effectiveness, requires planning and executing within the context of Army capability (ibid). Motor transportation is a ground support transportation function that includes moving and transferring units, personnel, equipment and supplies by vehicle to support the operations (Department of the Army, 1995). Army transportation units are the single largest provider of land surface movement within joint forces and include organic and contracted resources. Military transportation in particular, motor transportation, should comply with three essential conditions; it should be efficient and effective for the wants of the force employed, should be at all times in the best possible condition, and, lastly, always ready for movement (ibid).

Like all other armies, the Ethiopian Army requires transport service to move troops on duty and logistical items as well as to evacuate sick and wounded soldiers (FDRE Ministry of Defense Force, 2009). However, transport inadequacy has posed serious difficulties in various activities that the military encountered in recent years. And it is also one of the greatest sources of military expenditure (ibid).

Bure Front - where the 6th Serdo Mechanized Division is deployed is one of the sensitive fronts that require special attention. It is located far from the main supply centers of Addis

Ababa and Mekelle and encountered a number of constraints in delivering proper transportation service (Sixth Mechanized Division Logistical annual report, 2012). The distance is estimated to be more than 740 km and 810 km from Mekelle and Addis, respectively. Food items, uniforms, weapons, equipment, medical and building materials travel to Bure along the most difficult and bumpy roads. The 6th Serdo Mechanized Division, which is armed and equipped with huge and complex machineries, is the only mechanized unit in Bure front that needs adequate transportation facilities. The Division operates under unique geographical condition which poses various problems. Combat forces of the division have dispersed in small units over the wide area of the front. The Division's trucks travel to provide supply for the scattered units restlessly. Moreover, the poor qualities of the roads pose difficulties in maintainability and safety of vehicles (Sixth Mechanized Division operational annual report, 2012).

In fact the success of force multiplying process of an Army depends on the timely filling of unit equipment shortfalls. Shortages or late delivery of equipment due to transportation inadequacy can adversely affect the ability of a unit to train its personnel and to execute its assigned mission (Department of Army, 2005). Therefore, the transport service performers' ability and commitment to achieve the required level of materiel readiness is very essential (Department of Defense. 2007). However, the ability of the 6th mechanized Division to perform its tasks and to deter potential war can be adversely affected by insufficient supply of equipment and transportation service (Sixth Mechanized Division's inspection semiannual report, 2013). It is also true that, using available resources, minimization of downtime and maximization of battle readiness must be fulfilled through the durability of operational life of the equipment of transportation service (Department of Army, 2008). If this is done effectively, equipment can be deployed in a timely and responsive manner and maintained in the field with a minimum of downtime. But in case of 6th Mechanized Division, due to the increasing need of maintaining high combat capabilities while the budget still remains low, the transport unit is suffering from exaggerated long downtime of logistical and command vehicles, and purchased equipment are delivered late (Sixth Mechanized Division logistics Annual Report, 2013). It is also worsened by an inappropriate planning and execution of transportation activities including deploying,

coordination, scheduling and controlling. The Division's military transportation service plan and implementation report presented in its 2013 annual evaluation states that due to environmental difficulty and shortage of spare and component parts, trucks and equipment deployed at different operational sites over prolonged periods of time has observed unbelievable failure rates. Almost half of the light and logistical vehicles, armament carrier vehicles and command cars were not functional.

Providing timely, efficient and effective logistical support to army units in this front is now more critical than ever before. The army must have optimal logistical support to maximize its combat power. However, in the absence of appropriate transport service and respective planning and implementation process, it would be impossible to ensure the availability of the logistical items supplied as per to the needs of the army. Providing the best possible supply support using appropriate mode of transportation system is vital for the success of the combat forces. Because transportation service is the soul of an army which a wise administrator will not lose sight for one moment, and to which he should devote particular attention due to the success of his operations, and consequently his honor, almost always depend up on it (Furse, 1882). So, just as tacticians must concentrate on combat power to accomplish their mission, so too must logisticians and transport officers concentrate on logistical assets and managing transportation services to accomplish their mission. To do so, leaders must know all about resources: type and quantity on hand, location and conditions of transportation capabilities.

In this study, attempt is made to investigate the features of planning and implementation processes of transportation system and service delivery in the Sixth Mechanized Division.

1.2 Statement of the Problem

In the new millennium, agile supply increasingly relies on the efficiencies and capabilities offered by transportation technologies available in civilian sector. On the other hand, military transport requirements pose a unique set of problems that differ from those of the commercial world (Carson, 2003). The most important problem in transport delivery is the need for appropriate planning and execution of a complex set of activities including

coordination, deployment, scheduling, controlling and re-deploying motor transport, effective use of crews and support resources and the integrated use of both military and civil transport (Sarah et al, n.d).

Even though Ethiopia maintains considerable capabilities to transport its military forces to distant locations (FDRE Ministry of Defense, 2010), there are serious difficulties in the delivery of transportation service in the Ethiopian Armed Forces of the Bure Front (Sixth Mechanized Division Supply Department Annual Report,2012). Light Tactical Vehicles (4 wheeled vehicles), Heavy Tactical Vehicles are not available as per to the needs of the Army. Armament carriers, logistics vehicles, ambulances, command and control vehicles are forced to be limited in their movements because of the shortage of spare and component parts (Sixth Mechanized Division Maintenance Department Annual report, 2012). There are many complaints in the military personnel when they move for their annual leaves.

They waste unnecessary time in their journey and they cannot return back to their units in the scheduled time (Sixth Mechanized Division Human Resource Department Annual Report, 2012). There have always been serious concerns in the leadership in ensuring the combat readiness of the Army which is also very critical to defend the homeland from adversary forces. In the past three years various efforts have been made to find solutions for the problem. Annual inspections were conducted to assess the nature of the problem and to find solutions. Special attention was given to address the maintenance problems of the vehicles. Efforts were made to supply spare parts and component parts of the transportation vehicles. Even though some developments were observed in solving the problems the severity of the problem is still there and the progresses are very little. There is an urgent need of identifying the critical problems of planning and implementation of transportation service delivery to the Armed Forces and finding out possible solutions to the problems. Hence, this study attempts to critically discuss the features of planning and implementation process of transport services in distributing the military supply and service deliveries in Bure Front.

1.3 Research Questions

Based on the above stated problems, this study attempts to answer the following questions.

- How knowledgeable and skillful are the leaders in designing plans, execution, coordination and controlling.
- How effective are the deployment of resources and the operational procedures in meeting the ever-changing demands of the division;
- How far are the plans implemented to achieve the desired results?
- How far does the transportation section contribute in accomplishing the mission of the division and;
- How far are the customers satisfied from the delivery of the transportation service?

1.4 Objectives

1.4.1 General Objective

The general objective of this study is to examine the features of planning and implementation of the recent transportation service delivery in Bure Front, and to identify the level of unmet needs and to indicate possible solutions.

1.4.2 Specific Objectives

The specific objectives of this study are:

1. To investigate the features of the planning and implementation process of transport service delivery in Bure Front; and to explore knowledge gap of employees on strategic directions
2. To examine the operational procedures in meeting the ever changing demands,
3. To assess the deployment of resources in a timely and responsive manner and maintained in the field with a minimum down time;
4. To look in to the accessibility and availability of transportation services in proximity to the users location;
5. To explore how maintenance management and infrastructure condition is affected transportation delivery and;
6. To examine the performances of the controlling mechanisms of the transportation department and to see the over all customer satisfaction.

1.5 Scope and Limitations of the Study

1.5.1 Scope of the study

This study mainly focuses on the current performance of planning and implementation process of military transportation service delivery of supply in Bure Front. Even though a brief assessment is made on the historical background of Ethiopia's transportation system with regard to Armed Force of Ethiopia, more emphasis is given on the recent (the past 3 years) developments. With regard to the issues of the study, the effectiveness of planning and implementation of transportation service delivery is assessed. Regarding the agenda transportation service delivery specifically vehicle/motor transportation are the central focus of the study. Concerning the area coverage of the study, it is confined to the available data in Bure Front where 6th Serdo Mechanized Division is positioned. Geographically, this study will be limited on the areas of Semera, Mille, Elidar and Manda.

1.5.2 Limitation

This study is limited to one division of the Ethiopian Defense Forces deployed in Bure Front. And hence, it has its own limitation to explain the general features of other Defense Forces of Ethiopia with regard to planning and implementation of transportation activities**.** More over there were limitations of detailed documents with regard to the transportations service.

1.6 Significance of the Study

This study attempts to explain the features of the transport services in Bure Front with the main emphasis on planning and implementation process. The leaders and all members of the 6th Mechanized Division in Bure Front are in urgent need of understanding the problems of transportation and the fundamental causes of the problem as well as the remedial measures to be taken in solving the problems. They are demanding for the provision of effective and efficient transportation service for the success of their missions. Hence, this study is expected to contribute its role to support the Armed Forces by

investigating the features of planning and implementation process of the transportation service in Bure Front and there by exploring the possible solutions for the identified problems. Moreover, this paper could be used as initial reference for those who are interested to conduct further studies on the transportation sector of the Ethiopian Defense Forces. This study, as an initial effort may contribute to the body of knowledge and as problem solving material by presenting and discussing some important literatures and data on the issues of the present transportation performance.

CHAPTER TWO

REVIEW OF THE RELATED LITERATURES

2.1 Management in Transportation

Management in transportation movement is concerned with planning, organizing, and supervising the utilization of the transportation service capability (Department of the Army,1959). However, a distinction is drawn between administrative management and management. Administrative management is concerned with the establishment of basic policies and broad course of actions, the delegation of missions and overall direction and supervision. The administrative management aspects of transportation movements are concerned with the plans for movement to provide for the development and employment of transportation services and facilities. This is accomplished through the issuance of general directives to major transportation elements which lead to an integrated transportation system and provide for the overall fulfillment of movement requirements by the shippers (Preston, 2012). The performance of this function results in the determination from planners what, where, and when movement is required.

A transportation system serves may different users, each of whom is responsible to his respective commander for accomplishing specific objectives. In working towards these objectives, it is necessary for the user of transportation service to be informed of the amount of transportation capability that will be placed at his disposal to accomplish his transportation requirements (Department of the Army, 2001). He makes the decision as to how much of the transport service capability will be made available and this information is passed through channels to the user. This is an administrative decision and is concerned with the management of the movement capability. The administrative aspects of transportation movements are distributive throughout the various levels of command, each level performing that portion of the overall administrative activity for which it is equipped by virtue of the level of command which is occupies (ibid).

Operative management on the other hand is concerned with the utilization of assigned personnel and equipment so as to ensure the generation of maximum movement capability. It is exercised by the commanding officers of transport services, terminal services, and shipping and receiving installations. The exercise of this function establishes how the movement will be carried out.

2.2 Military Transportation Planning.

Military logistical transportation planning is process of determining how to get people and cargo from where they are to where they need to be(AASHTO, 2009). Inter-theatre movements of personnel and supplies around the world are currently planned for the Army, Navy, Air Force, and other services (ibid). The transportation planning process is quite complex, involving very large databases of movement requirements, and information about personnel, cargo, transportation assets, and geographic locations.

According to Mosley (1990), transportation planning is defined as "determining what must be moved, where and when it must be moved, and the best way to move it". He adds that the planner must pay attention to detail. The planner must realize that while working with a system that calculates detailed computations in minimal time. Transportation planning that supports a unified commander's operations plan covers both inter theater and intra theater movement and reception of personnel, materiel, and equipment into the theater and onward to their final destinations (ibid). The author states that in addition to the competing requirements for limited strategic resources, mobility support facilities, and intra theater transportation assets must be assessed in terms of impact on mission accomplishments. He says that priorities must be established to resolve conflicts of various needs of moving materials. A movement program is prepared in light of both movement constraints and the concept of operations. The movement program is the basis for development of detailed transportation schedules used in the execution phase of the plan (ibid).

Joint Operation Planning System (JOPS) states that the payoff in transportation planning depends on the timely delivery to planned destinations of both effective combat forces and the means for their sustained support. Effective combat forces include both unit personnel

and unit-related supplies and equipment. And sustained support includes support forces, replacement and filler personnel, resupply and buildup, materiel, and equipment (Montana, 2005). At the outset of transportation service planning, all requirements are assessed in terms of point of origin and destination. After it is determined what is to be moved, requirements (force increments, personnel increments, and cargo increments) are sequenced in order of desired arrival at the destination and the mode of transportation is selected. Time-distance factors are applied, a departure date is reckoned, conflicting requirements for limited transportation assets and mobility support facilities are reconciled, and the movement program is tested for feasibility (FM 55-1, 1995).

Department of Defense Pamphlet 700-5, 2001 contains considerations and requirements for the planning process. According to it, the transportation service planning process must be followed. The pamphlet orders the process to be as follows:

- **First**, determine what must be moved;
- **Second**, determine what transportation resources are available,
- **Third,** balance requirements against resources;
- **Fourth**, determine shortfalls and critical points and apply priorities,
- **Fifth** and most important, coordinate the plan with all units affected.

The pamphlet emphasizes that the transportation service planner must determine what the unit needs and then attempt to develop a transportation network to satisfy these needs. The details of the steps are presented in the following paragraphs.

2.2.1 Determine Requirements. Each requirement for movement of troops or supplies generates at least one requirement for transportation service. Initial transportation requirements can be expressed in terms of tonnage (or numbers of personnel) and distance.

In the later stages of planning, the tonnages become classes of supply or even distinct items and distances become routes between specific origins and destinations. The responsibility for providing adequate transportation supports for the operation rests with the transportation planner.

2.2.2 Determine Resources. Resources are determined by assessing transportation resources and considering:

1) What types of transportation units are available?
2) Characteristics and capabilities of transport,
3) Capabilities of available civilian transport, based on a survey of facilities, inspection of equipment, and agreements negotiated with civilian transportation operators.

2.2.3 Balance Requirements and Resources. Balancing requirements and resources is a process which determines the adequacy of transportation capability to support the operation. It also establishes the work load for each segment of the transportation service. In this stage the planner should provide adequate command and control by organizing units according to their mission, proposed locations, and area of coverage. Each planner selects the format that he finds most usable. One may use a chart listing all requirements and showing origin, destination, required delivery date, weight, quantity, and class of supply for each shipment. In the usual situation, the plan for the initial phase should provide sufficient motor transport for all cargo and personnel movements.

2.2.4 Determine Critical Points. Determining critical points along the proposed transportation system is done early in the planning process to identify points such as supply facilities, terminal and transfer locations, and other points which may create bottlenecks. Accompanying this critical point determination is an analysis of which alternative plans would alleviate possible bottlenecks. This builds flexibility into the system.

2.2.5 Coordinate with other Planners. Complete coordination among all planners is mandatory to ensure integrated support. Constant coordination with the other staff planners on changes to the mission, commander's concepts, assumptions, intelligence, policies,

priorities, allocations, locations of facilities, and other elements necessary to keep planning current is an absolute necessity**.** Coordination is critical to the success or failure of a transportation service delivery operation. The degree of coordination between different actors affects not only the efficient running of the operation but also the operations over all effectiveness.

2.3 Movement Control.

FM 100-17 (1992) defines **"Movement control is the planning, routing, scheduling, controlling, and coordinating responsibility for movements"**. Movement control also includes responsibility for ITV of personnel, units, equipment, and supplies moving over LOC. It includes the commitment of assigned modes and terminal assets according to command planning directives. Movement control exists at all levels of war and through the range of military operations. It is the most critical element of the Army transportation system.

2.4 The Principles of Movement Control

Carson, at, el, (2005) stated that, "**five principles govern the planning and execution of movement control operations".** These principles are as follows:

1. Centralized Control/Decentralized Execution.
2. Regulated Movements.
3. Fluid and Flexible Movement.
4. Maximum Use of Carrying Capacity.
5. Forward Support.

2.4.1 Centralized Control/Decentralized Execution

The most efficient method to provide movement control is to centralize control of movements at the highest level. Centralization means that a focal point for transportation

planning and resource allocation must exist at each level of command involved in an operation. The focal point is an individual or unit that is aware of the current and future requirements of the supported force as well as the capabilities available to meet the requirements. Centralization of movement control normally occurs at the levels charged with integrating logistic support. Decentralized control of mode and terminal operations are equally important. Decentralized execution of transportation missions means terminal and mode operators remain free to assign and control the specific transportation asset that will meet the requirement. This practice enhances the flexibility to prioritize support and accomplish the mission.

2.4.2 Regulated Movements

The regulation of movements has two applications. One deals with the apportionment of cargo carrying capacities to movement requirements. The second deals with the regulation of traffic through the LOC, including MSRs. Transportation planners must determine which traffic and LOC requires control. The free flow of goods and services will work in a non-saturated environment. However, saturation of the system normally occurs because highly mobile forces extend resupply lines. Increased consumption rates and a desire to reduce stockpiles are additional causes of saturation of the transportation system. Inadequate transportation capabilities in relationship to the size of the force supported will also require astute prioritization efforts.

An additional consideration is the support the Army provides to the other Services. In a joint and combined environment, regulation of transportation assets and LOC will prevent congestion and enforce priorities. Regulations of LOC movements are critical. A clear articulation of priorities is essential. MP organizations help by providing security, reconnaissance, and traffic control. Command priorities guide the regulation of all movements. In this regard, transportation planners, operators, and users must exercise discipline when establishing and using available transportation assets. The exercise of discipline assures meeting the commander's priorities. A disciplined transportation system enhances the confidence users have in the system's ability to support the mission. When

planning and executing movements, commanders must not validate, approve, or start any move if a terminal or mode in the transportation system cannot meet the requirement.

2.4.3 Fluid and Flexible Movement

The transportation system must provide for the uninterrupted flow of traffic. This means the system must be capable of rerouting and diverting traffic. Maintaining flexibility is one of the biggest challenges facing transportation planners and operators in a changing battlefield with shifting conditions and priorities. To accomplish this task successfully, the transportation system must be linked to an information and communications system. These systems provide data in time to adjust the responses of the terminals and modes in the system. Transportation planners and operators can also improve response time and flexibility by using the right modes for the right cargo. They can also anticipate the need for alternate modes and routes.

2.4.4 Maximum Use of Carrying Capacity

This principle involves more than loading each transport vehicle to its maximum carrying capacity. It also means using all available transport capability in the most efficient manner. While allowing for adequate equipment maintenance and personnel rest, transportation operators should keep transportation assets loaded and moving as much as the operational and tactical situation permits.

The discipline of the transportation system also plays an important role in the execution of this principle. Transport vehicles and containers need fast off-loading and return to the system to increase the transport capability for later operations. Discipline in the prompt return of transportation assets assures their availability for subsequent operations and avoids unnecessary cost. Similarly, transportation assets must support the retrograde of personnel and cargo operations.

2.4.5 Forward Support

The principle of forward support includes fast, reliable transportation to provide support as far forward as possible. Forward-oriented transportation support is a combat multiplier; it allows the commander to concentrate all his forces on the enemy. The key to forward support is the reception and clearance capabilities at the destination units. These units may require equipment and personnel augmentation to enhance their reception and clearance capabilities. Forward support may entail the provisioning of operational level transportation assets to support tactical level units. However, any requirement for forward support that relinquishes centralized control for an extended time must be balanced against the efficiency of the transportation system to provide time utility and to weigh the battle at decisive times and places.

2.5 Motor Transportation Planning

Planning ensures the proper allocation of transportation assets to fulfill mission requirements based on command priorities and to identify and mitigate shortfalls (FM 55-30, 2013). Field Manual 55-84H describes that, when planning motor transportation operations, managers should compare capabilities versus requirements, which will identify excesses or shortfalls. When excess or shortfalls exist, planners can mitigate these by changing vehicle types to effectively utilize carrying capacity.

To maximize efficiency and properly balance capabilities and requirements, motor transportation planners should analyze multiple factors, including the service performed, load and types of cargo to be carried and terrain. Availability rates, vehicle payload capacity and operational shift hours are factors to consider in early stages of planning assessing capabilities. To further develop capabilities, planners should consider the method of requested delivery, distances, march rates, delay times, threats and protection requirements, all of which are essential considerations (FM 55-87H, n.d).

Motor transport planning, particularly in its earliest stages, must often be based on broad planning factors and assumptions (FHWA and FTA, 2007). However, because of the varied services performed, loads carried, and terrain crossed, use general planning factors with caution and only in the absence of specific data on the local situation. When specific data is not available, use the following estimates to compute vehicle and truck company requirements:

1. Average number of assigned task vehicles not in maintenance and available for daily operations.
2. Anticipated payload per vehicle — rated cargo capacity of vehicle.
3. Average daily round-trips per vehicle (will vary with running time and delay times) — two per day (one per operating shift) (line-hauls), four per day (two per operating shift) (local hauls).
4. Average number of miles covered in an hour (including short halts)
5. Turnaround time — time consumed for round-trip movement, including delays.
6. Delay time (includes loading, unloading, and line-haul relay time; also includes halts and delays en route, such as mess halts or ferrying
7. Use per day of vehicles with drivers
8. Unit lift and daily lift — the amount of cargo a truck company can move at one time (unit lift); the amount it can move in a day, making a number of trips (daily lift).
9. Ton-or passenger-miles — the product often number of tons or passengers times the number of miles moved.

2.6 Maintenance planning and Management in transportation

Department of the Army Pamphlet 738-750 explained about the maintenance management that, each Department of Defense Component shall develop and implement a maintenance management program to ensure that assigned motor vehicles are maintained in a safe and serviceable condition, by the most economical means possible to provide appropriate transport service. Implementation of this management program must include performing, at a minimum, the following three basic types of maintenance.

2.6.1 Operator Inspection and Service. Operator inspection and service consists of the inspection and identification of malfunctions that render the motor vehicle unsafe and/or unserviceable. In addition, operator service may include minor parts replacement (wiper blades, fuses, light bulbs, valve caps, etc.) and servicing (water, fuel, tires, and battery), as specified by the DoD Component. When servicing is specified to be performed by other designated personnel, operators are responsible for ensuring that services are performed, and that the vehicle is in a safe and serviceable operating condition before, during, and after operation. In addition, the operator shall be responsible for reporting, in writing, any noted deficiencies to designated personnel responsible for taking necessary corrective action (Army Regulation 750-1, 1991).

2.6.2 Recurring Preventive Maintenance and Inspection (PMI). Department of Defense (DoD) motor vehicles must be periodically inspected by qualified automotive inspection personnel for safety and serviceability as follows:

Safety:- Each motor vehicle must receive an annual safety inspection. Safety inspection criteria will be specified by the Department of Defense (DoD) Component. Normally, to avoid unnecessary downtime, the safety inspection shall be performed at the time of the scheduled or unscheduled maintenance. It enables to cope up with existing Vehicle Downtime Standard. Vehicle Downtime Standard is the maximum percentage of time a vehicle is expected to be out of commission due to maintenance or lack of parts. It includes all the time accrued from the time maintenance is aware of the requirement for service, which prevents vehicle operation, to the time the vehicle is released from maintenance in an operational condition(FM 5587J, 2004). The next scheduled PMI should not exceed 12 months. Where the time intervals of these inspections do not reasonably coincide, the prescribed intervals for the safety inspection shall be followed. Deficiencies that impair safety of operations shall be corrected before returning the vehicle to an operational status (ibid).

2.6.3 Unscheduled Maintenance Service. The purpose of unscheduled maintenance is to correct deficiencies that occur between PMIs. Unscheduled maintenance is generally limited to the correction of specific items reported as deficient and confirmed by the diagnosis of qualified inspection personnel. Other deficiencies observed at the time of an unscheduled service, particularly those affecting safety, shall be corrected.

2.7 Planning Principles

Litman (2007) identifies the following principles of good transport planning. According to him the planning should be:

1. *Comprehensive:* whenever plans are prepared, completeness is necessary and coordination of all significant options, perspectives, impacts and objective is mandatory to ensure integrated support. If are not comprehensive; planners would face difficulties in proper execution of their plans.

2. *Efficient:* whenever plans are prepared the process should not waste time, money or both. Identifying resources, constraints, and conflicts; and then drawing attention to potential problems are main factors to measure efficiency of planning process.
3. *Inclusive:* people affected by the plan have opportunities to be involved. Stakeholders' involvement is often an important component of planning. It allows plans to be considered from a variety of perspectives, which can help identify potential problems easily in the process, and help gain support for a plans` implementation. The writer also suggests that whenever plans are not appropriate in involvement stakeholders, there would be draw backs in the final ends.
4. *Informative: results* are understood by stakeholders (people affected by a decision); with clearly defined vision, or problem statement, goals, objectives, evaluation criteria and performance indicators.
5. *Integrated* (individual, short-term decisions should support strategic, long-term goals);
6. *Logical* (each step leads to the next); and
7. *Transparent:* everybody involved in the planning development process and implementation should have understands and knows how the process operates with clearly defined vision or problem statements, goals, objectives, evaluation criteria and performance indicators.

According to Preston (2012), principle of good planning is that short-term decisions should support strategic goals. This requires comprehensive evaluation and negotiation to help people accept solutions that may seem difficult and costly in the short-term. Planners should strive to truly understand problems, not just a single perspective or manifestation. Effective planning requires correctly defining problems and asking critical questions. A planning process should not be limited to the first solution proposed or the concerns of people who attend meetings.

Litman (2006) suggests that planners must manage information flows including gathering, organizing and distribution. Planners should anticipate questions and provide accurate and understandable information, using visual information (maps, graphs, tables, etc.) and appropriate examples.

Litman (2010) adds that planning requires preparing for a future that is often impossible to predict, and so must incorporate *uncertainty*. According to him, forecasts should usually describe ranges and probabilities rather than point estimates, and plans should usually incorporate contingencies. Such contingency-based plans can include various actions, some to be implemented only if future conditions require.

The writer argues that planners work at the intersection of many disciplines and so need basic knowledge of many subjects including design and management, making it an ideal field for people with diverse interests. According to him, planners need many skills, including the ability to:

1. Accurately, critically and objectively evaluate problems;
2. Collect and analyze data;
3. Apply general concepts to specific situations;
4. Manage complex processes;
5. Communicate complex issues with many types of people; and
6. Listen respectfully.

Planning is a social activity – it involves people. Successful planning requires effective involvement (participation) of stakeholders. Planners should be prepared to work with people from diverse backgrounds, interests and abilities. Planners manage resources, such as people, time, money, land, and infrastructure.

2.8 Planning Concepts

A *planning framework* defines the basic planning process structure. This typically includes the following components (Poorman, 2005).

1. *Mission* – A basic rule or concept used for decision-making.
2. *Vision* – A general description of the desired result of the planning process.
3. *Problem* – An undesirable condition to be *mitigated* (solved, reduced or compensated).
4. *Goals* – A general desirable condition to be achieved, usually too general to be quantified.
5. *Objectives* – Specific, potentially quantifiable ways to achieve goals.

6. *Targets* or *standards* – Quantitative levels of objectives to be achieved.
7. *Performance indicators* – Practical ways to measure progress toward objectives.
8. *Plans* – A scheme or set of actions. This may be a *strategic* (general and broad) or an *action* (specific and narrow) plan.
9. *Options* – Possible ways to achieve an objective or solutions to a problem.
10. *Policies* or *strategies* – A course of action implemented by a jurisdiction or organization.
11. *Programs* – A specific set of objectives, responsibilities and tasks within an organization.
12. *Tasks* or *actions* – A specific thing to be accomplished.
13. *Scope* – The range (area, people, time, activities, etc.) to be included in a process.
14. *Evaluation criteria* – The impacts (costs and benefits) considered in an analysis.
15. *Evaluation methodology* – The process of valuing and comparing options, such as cost effectiveness, benefit/cost, or lifecycle cost analysis.

Evaluation refers to the process of determining the value of a policy or program. Goals can be defined in terms of *problems* (what you don't want) or their opposite, *objectives* (what you do want). It is important to carefully specify goals and objectives. More broadly defined goals expand the range of possible solutions. For example, defining transportation goals in terms of accessibility rather than mobility allows land use changes and improved telecommunications to be considered as well as mobility improvements (Liman, 2007).

Plans should be as specific as possible. It is generally easier to identify the desired *direction* of change ("the community needs more affordable vehicles for transport") then the optimal *magnitude* of change ("The community needs 1,000 additional vehicle units that accommodate transportation users"). Planners should ask themselves, how do we know when we've done enough, and how do we know when we've gone too far? (ibid) The writer argues that leaders and their subordinates have to know the basic planning process and strategic directions such as mission, vision, goals, objectives and over all planning processes.

2.9 The Concept of Accessibility

Accessibility (also called *access* or *convenience*) refers to the ability to reach desired goods, services, activities and destinations (together called *opportunities*). For example, a stepladder provides access to a high shelf, a store provides access to goods, and a library or telecommunications device provide access to information. Access is the ultimate goal of most transportation, excepting the small portion of travel in which movement is an end in itself. Even recreational travel usually has a destination, such as a resort or a campsite (Chapman et.al, 2008).

Four general factors can affect accessibility:

1. *Mobility*, the speed, quality and affordability of physical travel. This can include various modes including walking, cycling, public transit, ridesharing, taxi, automobiles, etc.

2. *Transportation System Connectivity*, which refers to the directness of links and the density of connections in path or road network.

3. *Land Use*, that is, the geographic distribution of activities and destinations. When real estate experts say "location, location, location" they mean "accessibility, accessibility, accessibility."

4. *Mobility Substitutes*, such as telecommunications and delivery services. These can provide access to some types of goods and activities, particularly those involving information.

2.10 Transportation in Logistics Chain

Tseng (2005) describe that about logistics that" Logistics was initially a military activity concerned with getting soldiers and ammunitions to the battlefield in time for flight, but it is now seen as an integral part of the modern production process**".** The probable origin of the term is the Greek logistikos, meaning 'skilled in calculating'. He also argues that, "The key elements in a logistics chain are transportation systems which joints the separated activities". Transpiration occupies one-third of the amount in the logistics costs and transportation systems influence the performance of logistics systems hugely (ibid).

Military definitions typically incorporate the supply movement and quartering of troops in a set. And now, a number of researchers were taken and made logistics applications from military to business activities (BTRE, 2001).

2.11 Major Influences of transport on Military Operations

FM 55-4 contains two major factors influence how military planners structure a transportation system to support a military operation. These factors are the levels of wars, and the range of military operations. (FM 55-4, 1959). Army planners, working in a joint environment or in an army component command, must understand the relationship between these factors. The planners must identify the transportation function and determine at which level of war to place the function. The planner must also identify the type of military operation and the nature of the involvement. Considering these factors and their relationships will clarify requirements and help establish the transportation system needed to support the operation.

a. The Levels of War

Field Manual 100-5 defines the three level of war as strategic, operational and tactical. These levels exist in every military operation regardless of the size of the committed force. Commanders at each of the levels can also be readily identified for each operation. Field Manual (F M) 100-5also defines the levels of war more by consequence of their outcome than by the echelons of involvement. This means, it is not always easy to distinguish between a strategic, operational or tactical action. At times, strategic organization conducts activities within the operational commander's area of responsibility (AOR). The opposite can also occur often defining the type of military action properly will be more helpful in determining where to conduct the activity within the area of responsibility. The levels of the war influence how the military approaches the range of military operations and the links to establish between tactical actions and strategic objectives (ibid).

b. The Range of Military Operations

The Army is required to function through a range of military operations. The range spans three states (from peace time, through conflict, to war). The Army calls its activities during peace time and conflict. Like the levels of war, the dividing lines between the components of the range of military operations are not discrete and are difficult to define. For example, the Army may find itself operating in all three states at the same time and in one or more regions of the world (ibid). Also, during the conduct of a military operation, changes between the states may occur. The range of military operations requires a well-planned and organized robust transportation force structure. Military planners must identify and tailor transportation organizations to fit the type of military operation. It is also important for military planners to integrate and coordinate all plans so they mutually support strategic objectives.

2.12 360 Degree Readiness of transport

360 Degree Readiness is how an army intends to measure it in the future and will enable a more holistic view of performance and operations. 360 Degree Readiness is the capability to see, assess, and synchronize the Army's Corporate Enterprise Assets in support of War fighting Operating Forces. Thus, when fully implemented, 360 Degree Readiness will provide increased visibility of how the Army resources are being spent for readiness in supply, training, procurement, transport and maintenance (Peltz E, at,el, 2002). The 360 Degree Readiness goal of monitoring Sustainment Base Production is to ensure the sustainment base is performing as planned to support the National Military Strategy, and Grow the Army requirements. The overarching metrics of materiel availability and materiel reliability directly relate to this by measuring how the Army provides reliable equipment in time to meet schedules using appropriate transportation method (ibid).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Site Selection and Background of the Organization.

The site of this study is the Area of Responsibility (AOR) of the 6th Serdo Mechanized Division of Ethiopian Armed Forces in Bure Front that includes the areas of Semera, Serdo, Dicheato, Galafi, Eldiar, Manda, Bure, Afdera and Burka. The Division is part of the North East Command of the Ethiopian Defense Forces deployed mainly in Afar region and has seven Combat Regiments with other supportive staffs. Geographically, Bure Front is on the category of desert where the temperature ranges from 35^0c-43^0c. The area receives a small amount of annual rain fall. Regarding to the transportation facilities there is one asphalt road that connects Semera-Dicheato-Galafi and Serdo-Afdera. All the remaining roads which account two third of the total road coverage is bumpy, sandy and difficult for transportation. The Head Quarter of the transport department of the Division is located in Semera with its branches of Eldiar and Manda. All food items, ammunition, fuel, and clothing materials are delivered to all regiments; and trench building materials to front line are travelled via these roads.

3.1.1 A Brief Background of the Sixth Mechanized Division Transport Department

The transport department of the 6th Serdo Mechanized Division established in 2006 under the Command of Sub Command using the vehicles and garage materials which were the properties of different Mechanized divisions. At the beginning, the department had a fleet of 45 providing service to the army. The total number of staffs in the department including command car drivers at the time was 45. Since the next year (2007) the department has expanded its capacity and area of coverage and increased the number of vehicles per location.

The department has grown steadily, and it acquiring more vehicles and accessories in order to meet the increasing demands for its service delivery. Currently the department operates 107 vehicles, with 3 administrative and 103 operational staffs. However, transport inadequacy has posed series difficulties in various activities that the division encountered in recent years. As indicated in the introduction part of this thesis, due to environmental difficulty and shortage of spares and component parts, and worsened by an inappropriate planning and execution, the transportation service was not satisfactory for its users. The investigated documents, daily, weekly, monthly and annually reports of regiments also revealed that there were a lot of grievances and recommendations regarding to transportation services especially with connected to water supply, fire wood and sometimes food items which were delivered to users in lately manner. Despite the increasing demand for the service particularly in locations (Regiments), the department could not fulfill all service requirements currently due to resource, management and environmental constraints. However, as revealed during discussion with chief logistics officers of the Regiments, efforts are made to supply spare and component parts of the transportation service. And some developments are observed in solving deployment problems. But the changes are very little; the severities of the problems are still in the ground.

3.1.2 Vehicle Operation

The department has different types of vehicles. Their difference is expressed in type, capacity and operational system. The current fleet size of the department is 107 vehicles. It has 79 active fleets and 10 vehicles under maintenance 7 vehicles are totally non-operational due to the sever damage and lack of spare part and the remaining 11 vehicles are waiting spare part in their location. Most of the vehicles are 12 to 16years old while some are less than 8 years old. The data indicates that the ratio of numbers of nonfunctional vehicles to functional vehicles reveal the department can not satisfy the demand of the combat units. Hence resource particularly spare and component parts are account for this limitation. Currently the department has 106 staff members. The number of administrative staff is 3 and the number of operational staff is 103.

3.2 Data Type and Source.

3.2.1 Data Type.

This study uses both qualitative and quantitative data. The qualitative data include the features of the institutional system of the transportation service, qualities of planning and implementation process, command and control and motivations and behaviors of the Armed Forces in performing transportation activities. The quantitative data is used to explain variables which are measurable that includes the basic facts which are used to compare the levels of different opinions and to look in to the number of functional and nonfunctional vehicles so that sound conclusions are drawn.

3.2.2 Data Sources.

The sources of the data used for this study are both of primary and secondary type.

Primary Sources are key informants of the study that include administrators of the transport departments and their members, service recipients and service providers.

Secondary sources include plans and, implementation reports, manuals, rules and regulations, Rules of Engagement (ROE) concerning the delivery transport service on the study area.

3.3 Research Strategy and Design.

3.3.1 Research Strategy

The strategy that is employed in this study is a mix of quantitative and qualitative methods.

The qualitative strategy is employed to understand the behaviors and motivations of the armed personnel in planning, orientation, organization and implementation of transportation service delivery and to investigate the organizational behavior of the Division in terms of the institutional framework on the transportation sector.

Quantitative strategy is used to describe and analyze measurable data. Data were displayed in terms of average, and percentages.

3.3.2 Research Design.

The research design chosen for this study is the descriptive survey type. This is compatible with describing the features and characteristics of planning and implementation of transport service delivery of the Division under study. In this regard the behaviors of the leadership and members of the armed forces was discussed. The researcher is choosing the descriptive survey to look in to the following issues:

1. The present conditions and needs of the transportation service delivery of the 6th Serdo Mechanized Division.
2. Solid facts about the transportation service delivery and the behavior of military personnel of that Division.
3. The relationships of traits and characteristics (trends and patterns) of the transportation service and military personnel.
4. The association between planning and implementation process.

The descriptive survey method is more realistic than other methods and oriented towards describing the present status of a given phenomenon

3.4 Target Population Sampling Design and Procedures

The target population of this particular study includes all the members of the 6th Mechanized Division and its size is about 2200 personnel. The transport department classifies its users in to three areas i.e. majority of Division staff members and small combat units who are located around the head quarter of Semera, three Regiments which are assigned as a reserve forces, and other three Regiments which are located in firing position of Bure front lines. The respondents selected were those who worked in the field of transportation for many years that include transport officers and drivers; as well as users of the transportation service that include logistics officers (ration, field and inventor officers), maintenance professionals and military personnel of the Regiments.

3.4.1 Sample Size.

As a general rule, one can say that the sample must be an optimum size. An optimum sample is one which fulfills the requirements of representativeness, reliability and flexibility (Jonker, et, al, 2010). Technically, the sample size should be large enough to give a better confidence interval. And as such, the sample must be chosen from the universe by some logical process. It is often suggested that one should include at least 30 subjects in a sample size since this number permits the use of large sample statistics. Based on the above facts, the researcher preferred to use a sample of 110 respondents which is 5% of the total population. And this is believed to be a reasonably large sample size

3.4.2 Sample Design

In this study the sample was drawn using convenient sampling method. Two types of sampling were arranged. The first sample is designed for focus group discussion and the second type is quota sampling for distribution of questionnaires. For the focus group discussion higher officers that are responsible for planning, organizing, as well as command and control for their assigned duties were involved. For these purpose unstructured questions were prepared to discuss the issues of study in more details

On the other hand, a quota sampling method is used to select respondents who would give their answers to the questionnaires that were distributed to them. In this case the respondents were selected from three different strata of military ranks; line officers, noncommissioned officers and private soldiers. All these are transport service recipients but their opinions and observations could vary due to their differences in responsibilities and experiences. Line officers are responsible for leading tactical units like regiments and companies through planning, coordinating and controlling; while noncommissioned officers are responsible for leading smaller units such as platoons and squads. They are also engaged in the implementation of duties together with the private soldiers. Private soldiers are engaged in the implementation of their duties and they are not responsible for leading units. Hence, the military personnel of different strata were taking different types of trainings that match with their respective responsibilities.

Total population size from which the sample was drawn is N=2220 which is divided in to three different strata. The size of each stratum is as follows. Line officers N_1 = 293; noncommissioned officers N_2 = 1200; and basic soldiers N_3 =727.

The total number of respondents from the three strata is n = 110. The sample size in distributed in to the three different strata proportionately as follows:

Line officers: $n_1 = n (N_1/N) = 110 (293/2220) = 15$

NCOs: $n_2 = n (N_2/N) = 110 (1200/2220) = 59$

Basic soldiers $n_3 = n (N_3/N) = 110 (727/2220) = 36$

Thus, using the proportional allocation the sample sizes for the Line officers, Noncommissioned officers and basic soldiers were 15, 59 and 36 respectively. Since drawing samples randomly from all the Division is expensive and time consuming, the elements to be included in each stratum were selected by assigning quota and on the basis of the researcher's personal judgments. The sample size of each stratum is again drawn disproportionately from three different sites namely, Semera, Elidar and Manda/ Bure as presented in the following table.

Table 3.1 Distribution of respondents included in the sample

Stratum	Semera	Eldiar	Manda/Bure	Total
Line officers	7	4	4	15
NCOs	21	19	19	59
Privates	14	11	11	36
Total	42	34	34	110

3.5 Data Collection Instruments and Field Work

3.5.1 Data collection instruments

In developing the data collection instruments, the researcher considered the main purposes of the study. The researcher used questionnaires, interviews and focus group discussion to collect the primary data; and secondary data were collected by assessing contents of various articles, academic books, policy documents, plans and implementation reports.

Focus group used in this paper was comprised of operation officer, training officer, supply officer, communication officer, HRM officer, purchasing officer, health care center officer and maintenance officers who collectively brought several years of experience of developing, planning and implementing of their respective duties and they are users of transportation service. The purpose of the focus group was to understand the dynamics nature of transportation service delivery from the perspective of all types of fields and departments concerned on planning and implementation of transportation service. Focus group participants represented a cross-section of departments and included four main departments of the 6th Serdo Mechanized Division.

The study of the planning and implementation transportation service was also conducted by means of on-site interviews of representatives of multiple stakeholders involved in planning and implementing in each of the seven combat units and four main departments of the division. Whereas the goal of the focus group discussion obtains information from the perspective of the collective attitude, the personal interviews were intended to learn about the planning and implementation process from the perspective of different stakeholders. Interviews were conducted of approximately a dozen individuals in three different locations. Personal interviews with teams of professionals involved in planning and implementation of transport service at each location yielded a wide variety of information pertinent to the planning and implementation of transportation service delivery and the environment in which the transportation service were operating.

3.5.2 Field Work The research has three consecutive stages. The pre-field work stage, field work stage and post- field work stage. The strategies used are grouped under these stages as discussed below.

Pre- field work study

In this stage two main tasks were accomplished. First, the data required to be collected through interviews, literature review, and focus group discussions were identified. And then potential sources of data and key contact persons were identified. These helped to the development of conceptual framework and research design. The second task was preparing questionnaires and interviews. Semi-structured interview questions were prepared for high officers with the assumption that they might not have enough time to give required information through interviews. The questions for transport and maintenance departments were structured. Different questions were prepared for maintenance and transport departments.

The questionnaire for the customer's opinion survey was prepared. The questions were made to be short as far as possible to obtain the required information in the three locations (Semera, Elidar and Manda). It mainly included questions on the knowledge of employees on strategic directions, planning process and implementation, characteristics and nature of the plans, behaviors of the leadership and staff members and the overall satisfaction of customers on the transportation service.

Field work

Primary data collection:-The data identified during the pre-field work were collected from primary and secondary sources during the field work. The primary data were collected through interviews, questionnaires and focus group discussions. Interviews were conducted with higher officers to get information about the plans, their implementations and the resulting performances of military transportation service.

In addition, opinion survey was conducted on customers through questionnaires to explore their feelings on the services they are offered. A total of 110 respondents were administered at the head quarter and other locations with the help of field assistants. Since prior information about the spatial distribution was known, the sampling technique used was

quota sampling. As a result, most of the survey was conducted at three main locations, namely; Semera, Elidar and Manda/Bure.

3.6 Data Processing and Analysis

3.6.1 Data processing

The data, after collection, were processed and analyzed in accordance with the outline laid down for the purpose at the time of developing the research plan. This is essential for a scientific study and for ensuring that to have all relevant data for making contemplated comparisons and analysis.

Technically speaking, processing implies editing, coding, classification and tabulation of collected data so that they are amenable to analysis.

In this study, editing of data was made by the researcher and enumerators to detect errors and omissions and to correct these at the field work stage. Field editing was done to assure that the data are accurate, consistent with other facts gathered, uniformly entered and completed.

3.6.2 Data Analysis

Miles and Huberman (1994) define data analysis as consisting of three current flows of activity in order to bring up raw data to the usable information which is suitable to use for decision making: data reduction, data display, and conclusion drawing/verification" (ibid p.10). The researcher has used data reduction in order to make the data sharp, precise, focused and arranged. The second activity is taking the reduced data and displaying it in an organized manner to draw conclusion and derive policy relevant recommendations. Descriptive analysis is used in this particular study. It is concerned with numerical and nonnumeric description of a particular group observed.

The most commonly used methods of analyses are:

1. Calculating frequency distribution and percentages of items under study.
2. Graphical presentation of data frequency, pie chart, Bar chart.

For this purpose a total of 110 questionnaires were administered and collected. In analyzing the collected data the statistical package for social science (SPSS) software version was applied. In this case, the collected data were described using percentages and frequency distribution. The results of the statistical computations were analyzed in relation to relevant theories, literatures and practices. And finally, after interpreting the findings their implications were discussed.

CHAPTER FOUR

RESULTS AND DISCUSIONS

In this chapter, an attempt is made to describe the behavior of respondents selected for primary data collection and to organize the data collected through questionnaires, interviews and focus group discussions. The consistencies or discrepancies of the responses from different strata are assessed to see the reliability of the results. Furthermore, the results are analyzed in relation to the related literature and the practice.

4.1 Demographic Characteristics

Demographic information was gathered using a survey of Line Officers on the one side and Non Commissioned Officers and privates on the other side. It was conducted over 110 respondents (service users) of which 15(13.7%) are line officers, 59 (53.6%) are Noncommissioned Officers and 36(32, 7%) of them are private/soldiers.

Table 4.1 Demographic Characteristics of Respondents classified by Sex, Age and education

	Rank	Line offices		NCOs		Privates/soldiers	
		Frequency	percent	frequency	Percent	Frequency	Percent
Sex	Male	14	93.3	56	94.9	34	94.4
	Female	1	6.7	3	5.1	2	5.6
Age	25 and below	2	13.3	20	33.9	25	69.4
	26-35	9	60	36	61	10	27.8
	36-45	4	26.7	3	5.1	1	2.8
	Above 45						
Education	Below 10^{th}	8	53.5	36	61.1	20	55.6
	Certificate	2	13.3	10	16.9	9	25
	Diploma	2	13.3	10	16.9	5	13.9
	Degree above	3	20	3	5.1	2	5.6

Total	15	100%	59	100%	36	100%

The sex of the respondents indicate that, 14(93.3%) of line officers are male, and 1(6.7%) of line officer is female; while 56(94.9%) of NCOs are male, the remaining 5(5.1%) of NCOs are female respondents, and 34(94.4%) PVTs are males and 2(5.6%) of pvts are females.

Regarding the ages of the respondents, from the officer respondents, 2 (13.3%) of them are 25 years and below, most of the line officers which 9(60%) of them are in the age range of 26 to 35 and the remaining numbers of the officers which of 4(26.7%) are in the age range of 36 to 45. On the other hand respondents those who are Noncommissioned Officers 20(33.9) of them are found in the age of range 25 and below, 36(61%) of NCOs, 3(5.1%) of NCOs are found in age range of 36 to 45, and private/soldiers 25(69.4%) of them are found in the age range of 25 years and below, 10 (27.8%) are in the age range of 26 to 35 and only 2(2.8%) of them are in the age range of 36 to 45.

Regarding to the educational qualification of respondents, they have different educational status. Most of respondents which of 8(53.3%) from the officers are below grade 10^{th}, 2(13.3%) of the officer respondents are certificate holders and similar number of respondents are also diploma holders the remaining percent which is 3(20%) respondents are degree holders. From the Noncommissioned Officers side, more than half of the respondents which are 36(61.1%) are below 10^{th} grade and 10(16.9%) and 10(16.9%) of the respondents are certificate and diploma holders respectively, but only 3(5.1%) of them are degree holders. From the private soldiers side, 20(55.6%) of them are below 10^{th} grade, and 9(25%) of soldiers are certificate holders, while 5(13.9) of the soldiers are diploma holders, only 2(5.6%) of them are degree holders.

4.2 Strategic Directions.

Respondents were asked to evaluate their knowledge on strategic directions of the organization which comprises mission, vision, goals, objectives and overall planning

process of the organization. Accordingly, Line Officers, Noncommissioned Officers and privates have answered the question from their own perspectives.

Table 4.2: Knowledge of Respondents on Strategic Directions

Characteristics	**Rate**	**Line officers**		**NCOs**		**Privates/soldiers**	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Knowledge of Respondents on mission	Very high						
	High	3	20	16	27.1	12	33.4
	Moderate	9	60	30	50.8	19	52.7
	Low	3	20	13	22.1	5	13.5
	Very low						
Knowledge of Respondents on Vision	Very high						
	High	5	33.3	16	27.1	10	27.8
	Moderate	8	53.3	28	47.5	18	50.0
	Low	2	13.3	15	25.4	8	22.2
	Very low						
Knowledge of Respondents on Goals of the Organization	Very high						
	High	5	33.3	17	28.8	12	33.3
	Moderate	7	46.7	29	49.2	17	47.3
	Low	3	20	13	22	7	19.4
	Very low						
Knowledge of Respondents on objectives	Very high						
	High	6	40	17	28.8	11	30.6
	Moderate	6	40	30	50.8	18	50.0
	Low	3	20	12	20.4	7	19.4
	Very low						
Knowledge of Respondents on over all planning process	Very high						
	High	4	26.7	9	15.3	6	16.6
	Moderate	6	40	20	33.9	12	33.4
	Low	5	33.3	30	50.8	18	50.0
	Very low						

Source: own survey, 2014

implementation of the plan and their day to day activities.

As can be observed from **Table 4.2**, above 3(20%) of Line Officers, 16(27.1%) of Noncommissioned Officers and 12(33.4 **Table 4.2** above summarizes the knowledge of respondents on the strategic directions (mission, vision, goals, objectives and overall planning process) of the organization in relation to the %) privates have rated their knowledge about the mission of the organization high; 9(60%) of Line Officers, 30(50.8%) NCOs and 19(52.7%) pvts have rated their knowledge on mission of the organization is

moderately; while 3(20%) Line Officers, 13(22.1%) NCOs and 5(13.9%) PVT have rated their knowledge about the mission of the organization is low.

The result from the respondents reveals that most members have moderately knowledge on their mission. None of the respondents said there is very high level of knowledge among the members of the respondents. Those who said that there is high level of knowledge are considerable in number. There is no significant difference among the groups of respondents' response. This indicates that the level of knowledge among the employees have conducive ground in carrying out their mission.

Regarding to the knowledge of vision it can be seen from the above **Table 4.2** that, 5(33.3%) Line Officers, 16(27.1%) NCOs and 10(27.8%) PVTs have indicated that their knowledge about the vision of the organization is high; and 8(53.3%) Line Officers, 28(47.5%) NCOS and 18(50%) PVTs have indicated that their knowledge on vision of the organization is moderate and 2(13.3 %) Line Officers, 15 (25.4%) NOC and 8(22.2%) PVTs have rated their knowledge on vision of the organization is low.

The result attests that the majority of the respondents have moderately level of knowledge about the vision of the organization. Those who said that there is a high and moderate level of knowledge account about three-fourth of the respondents. Those who said that there is low level of knowledge are limited in number. This indicates that the level of knowledge on vision among the employees still have conductive ground in carrying out the mission.

Regarding to the knowledge of goals **Table 4.2** shows that, 5 (33.3%) officers, 17(208.8%) NCO and 12(33.3%) PVTs replied that their knowledge about the goals of the organization is high; and 7(46.7%) officers, 29(49.2%) NCO and17 (47.3%) PVTs have indicated that they have possessed moderate knowledge about the goals. The remaining 3(20%) officers, 13(22%) NCO and 7(19.4%) PVTs have indicated that they have low knowledge about the goals.

The table of the respondents showed that, on average more than 80% of the respondents of all the group of respondents have rated their knowledge about goals of the organization is high and moderate. Only about 20% of them have said that their knowledge is low. Still, there is no significant difference between the respondents of Line Officers, NCOs and pvts

in their responses. None of the respondents said there is very high level of knowledge among the members of employees. This shows that the level of knowledge on the goals among the employees have indicated moderate and above moderate.

Another question for which the respondents gave answer was their knowledge about the objectives of the organization. As can be seen from **Table 4.2,** 4(26.7%) officers, 17(28.8%) NCO and 11(30.6%) PVTs have perceived that their knowledge about the objectives of the organization is high; and 6(40%) officers, 30(50.8%) NCO and 18(50%) PVTs have indicated that their knowledge about the goals of the organization is moderately; while 3 (20%) officer, 12 (20.4%) NCO and 7(19.4%)PVTs have perceived their knowledge about the objectives of the organization is low.

From the respondents point of view the result suggests that, majority of them have high and moderate knowledge on the objectives of the plans. There is no significant difference among the respondents of Line Officers, NCOs and privates in their responses. None of the respondents have said there is very high level of knowledge among the members of employees. This indicate that the level of knowledge among the employees have been progressing to higher level.

Some of the questions for which the respondents gave answer were their knowledge on the overall planning process of transportation service delivery of 6th Mechanized Division. As can be seen from **Table 4.2**, 4 (26.7%) officers, 9 (15.3%) NCO and 6(16.6%) PVTs have indicated that they have high level of knowledge on the overall planning process; and 6 (40%) officers, 20 (33.9%) NCO and 12(33.4%) PVTs have indicated that they have moderately level of knowledge on the over all planning process. And the remaining 5(33.3%) officer, 30 (50.8%) NCO and 18(50%) PVTs have indicated that their knowledge is low.

The respondents confirmed that there is different level of knowledge among them on the over all planning process. The result of the respondents indicated that more than half of the officers have moderate and high level of knowledge on the planning process. And the results of NCOs and PVTs respondents indicate that about half of them have perceived

their knowledge on planning process is low. This difference is expected. Because Line officers are responsible for leading tactical units like regiments and companies through planning, coordinating and controlling; while noncommissioned officers engaged in the implementation of duties together with the private soldiers. Private soldiers are engaged in the implementation of their duties and they are not responsible for processing of plans.

The above results suggest that relatively large number of each stratum (the line officers, the NCOs and the privates) has the perception that their knowledge about the strategic directions (mission, vision, goals, objectives and planning process) of the organization is moderate and above moderate. poorman (2005) in its title of the Planning Concept suggests that leaders and their subordinates of any organization have to know the basic planning process and strategic directions such as mission, vision, goals, objectives and over all planning processes (see chapter 2). It also indicates that vision is a general description of the desired results of the planning process. These desired results must be known by all managers and subordinates in the development of planning process. Though moderate and above moderate level of knowledge is satisfactory in order to achieve the desired results, progressing should have been seen in level of knowledge of the employees. Whenever there are gaps in the knowledge of the employees over their mission they would have difficulties in effectively accomplishing their mission. This is because of the fact soldiers are expected to be fully committed not only to offer their energy and time but also to sacrifice their precious lives to safeguard the security of their homeland. However, most of the respondents claim that their knowledge is moderate and above moderate. This shows that the efforts made to educate the military personnel to understand their mission is adequate.

4.3 Planning process

Some of the questions given to the respondents referred to planning process of the transportation service which comprises comprehensiveness, inclusiveness, informative, transparency and participative nature of the planning process. Apportionment of plans in to terms, and appropriateness of plans are also evaluated by the respondent**s.**

Table 4.3 Planning process of transportation service delivery

Characteristics	Rate	Line officers		NCOs		Privates/soldiers	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Comprehensiveness of plans	Very high						
	High	2	13.3	9	15.3	4	11.1
	fairly	4	26.7	15	25.4	8	22.2
	Low	9	60	35	59.3	24	66.7
	Very low						
Inclusiveness of plans	Very high						
	High	2	13.3	8	13.6	5	13.9
	fairly	4	26.7	14	23.7	6	16.7
	Low	8	53.3	34	57.6	22	61.1
	Very low	1	6.7	3	5.1	3	8.3
Informative of plans	Highly						
	Just	1	6.7	7	11.9	5	13.9
	Fairly	3	20	3	22	7	19.4
	Less	8	53.3	33	55.9	20	55.6
	Never	3	20	6	10.2	4	11.1
Transparency of plans	Highly						
	Just	1	6.7	5	8.5	2	5.6
	Fairly	3	20	13	22	7	19.4
	Less	8	53.3	32	54.2	21	58.4
	Never	3	20	9	15.3	6	16.6
Participative of plans	Highly						
	Just	3	20	10	16.9	5	13.9
	Fairly	3	20	11	18.6	7	19.4
	Less	7	46.7	28	47.5	19	52.8
	Never	2	13.3	10	16.9	5	13.9

Source: own survey, 2014

Table 4.3 shows that 2(13.3%) line officers, 9(15.3%) NCOs and 4(11.1%) pvts have said that plans of the transportation service are high comprehensive in their developing process; 4(26.7%) line officers, 15(25.2%) NCOs and 8(22.2%) pvts have indicated that plans of the transportation service are moderately comprehensive; and 9(60%) of line officers, 35(59.3%) of NCOs and 24(66.7%) of pvts have indicated that plans of the transportation service are low comprehensive**.**

The result from the respondents reveals that most of them have perceived the planning process is low in comprehensiveness. None of the respondents said the planning process is very high in comprehensiveness. Those who said that the planning process is both high and

moderate comprehensive are limited in number. And there is no significant difference among the groups of respondents in their response. This indicates that the planning process of the transport department has considerable limitation regarding to the comprehensiveness.

This is also consistent with the data obtained from focus group discussion. The participants of the focus group discussion noted that lack of comprehensiveness appear in the planning process and implementation of the plans. Specifically, the results of focus group discussion indicate that lack of an overall comprehensive framework is a shortcoming in the planning, pre-implementation, implementation and post-implementation processes. The members have forwarded their opinions by saying that, planning process should be comprehensive, reflective of all significant perspectives, impacts and objectives. But these are lacking in the planning process of the transport department of the 6th Mechanized Division. The investigated plan documents of 2011, 2012, and 2013 also witness that there are serious shortcomings in their settings.

Litman(2007) in his title of Planning Principle suggests that-whenever plans are prepared, completeness is necessary and coordination of all significant options, perspectives, impacts and objective is mandatory to ensure integrated support(see chapter 2). The writer also argues that whenever plans are not comprehensive; planners would face difficulties in proper execution of their plans. The planning process of the transport department of the division is against the above mentioned principle. This indicates that the planning processes are lacking comprehensiveness. And hence the Transportation Department is lacking a very critical factor for its success of service deliveries.

In regard to inclusiveness of planning process, the dominant opinion of the respondents reveals that the planning process is less inclusive. As can be seen from **Table 4.3 above** 2(13.3%) line officers, 8(13.6%) NCOs and 5(13.9%) PVTs have said that plans of the transportation service are just inclusive in their developing process and 4(26.7%) line officers, 14(23.7%) NCOs and 6(16.7%) PVTs have indicated that plans of the transportation service are moderately inclusive in their development process. While 8(53.3%) line officers, 34(57.6%) NCOs and 22(61.1%) PVTs have indicated that plans of the transportation service are low in their inclusiveness, only 1(6.7%) line officer, 3(5.1%)

NCOs and 3(8.3%) PVTs have indicated that the plans of the transportation service are very low in their inclusiveness.

The result reveals that most members have perceived low level of inclusiveness of the planning process. None of the respondents said the planning process is very high inclusive. Those who said that the planning process is both high and moderately inclusive are limited in number. And there is no significant difference among the respondents response. This indicates that the planning process of the transport department has considerable limitation to be inclusive.

The opinions from the focus group discussion also reflect that the plans are low in inclusiveness. This indicates that the plans of the department are missing an important ingredient. Hence, it could be suggested that difficulties could be encountered in proper implementation of the plan. From the perspective of focus group members, the planning processes of the transport department did not ensure adequate stakeholders' involvement. In contrast to principles of planning, concerns did not seem to have much of an impact on planning process. Those shortcomings have acknowledged by the department. And the investigated plan documents ascertain those shortcomings.

The Principle of Planning suggests about the inclusiveness that people affected by the plan have opportunities to be involved (see chapter 2). Stakeholders' involvement is often an important component of planning. It allows plans to be considered from a variety of perspectives, which can help identify potential problems easily in the process, and help gain support for a planes` implementation. The principle also argues that whenever plans are not appropriate in involvement stakeholders, there would be draw backs in the final ends. Deviation is clearly seen between the principle and actual planning process of the transportation department. The planning processes are against the principles. Hence it could be suggested that, the plans would be insignificant instruments in guiding the operational activities of the transportation department of the division.

Regarding to the informative nature of the planning process about half of the respondents have perceived less level of informative nature of the planning process. As can be noted

from **Table 4.3** 1(6.7%) line officers, 7(11.9%) NCOs and 5(13.9%) PVTs have perceived that plans of the transportation service are just informative; and 3(20%) line officers, 13(22%) NCOs and 7(19.4%) PVTs have indicated that plans of the transportation service are fairly informative. While 8(53.3%) line officers, 33(55.9%) NCOs and 20(55.6%) PVTs have said plans of the transportation service are less informative, only 3(20%) line officers, 6(10.2%) NCOs and 4(11.1%) PVTs have perceived that plans of the transportation service are not informative at all.

In the cases of informative nature of planning process, the respondents attested that the plans of the transportation service are less informative. This is confirmed by most of members of the respondents. Almost three-fourth of respondents perceived the informative nature of planning less and not informative at all. None of the respondents said the planning process is highly informative. Those who said that the planning process is both just and fairly informative are limited in number. Still there is no significant difference among the groups of respondents' response. This indicates that the planning process of the transport department has critical limitation to be informative. This is also consistent with the data obtained from focus group discussion. Almost all of the officers in the focus group discussion have said that, the results of transportation plans are not understood by the stake holders (people affected by a decision).the group members also presented their idea at the discussion that planners must manage information flows, including gathering, organizing and distribution. From the perspective of focus group members Stakeholders have not kept informed and have no opportunity for involvement. This is also indicated the plans have lacking to be informative.

In respect to the transparency of planning process, the result from the respondents reveals that the plans of the transportation service have problems of transparency. As can be seen from **Table 4.3**, 1(6.7%) line officer, 5(8.5%) NCOs and 2(5.6%) PVTs have perceived that plans of the transportation service are just transparent; and 3(20%) line officer, 13(22%) NCOs and 7(19.4%) PVTs have perceived that the plans of the transportation services are fairly transparent. While 8(53.3%) officers, 32(54.2%) NCOs and 21(58.4%) Pvts have indicated the plans of the transportation service are less transparent Only 3(20%)

line officers, 9(15.3%) NCOs and 6(16.6%) PVTs claim that the plans of transportation service are not transparent at all.

The result from the respondents reveals that the plans of the transportation service have problems of transparency. Because, on average 55.3% of all the respondents reflect that the plans of the transport are less transparent. Though considerable numbers of respondents said that the plans are fairly transparent, those who said the plans are just transparent are very few. None of the respondents said that the planning process is highly transparent. Yet there is no significant difference among the responses of the groups. This indicates that the planning process of the transport department has critical limitation in fulfilling the requirement of transparency. The investigated plan documents of 2003, 2004, and 2005 also revealed that there are serious shortcomings in their settings. Lack of transparency is clearly seen in almost all of the documents.

This is also dependable with the data obtained in the focus group discussion. The focus group discussion members in their discussion said that, Practically the planning processes of the transportation department of the 6th Mechanized Division are not understood by all stakeholders (users, Regiment commands and members, other staff planners), with clearly defined vision or problem statements, goals, objectives, evaluation criteria and performance indicators.

The planning principle of military transportation also suggest that in principle everybody involved in the planning development process and implementation should have understands and knows how the process operates with clearly defined vision or problem statements, goals, objectives, evaluation criteria and performance indicators. According to the planning principle, highly transparency in planning process is very critical for the successful implementation of the plan. Otherwise with less transparency in the planning process, it is very difficult to sense of ownership among the employees. And hence the planning process of the Transportation Department is lacking a very important factor of its success.

Relating to the participative nature of the planning process, the respondents bear out that there is less participations of employees in the planning process. As can be noted from **Table 4.3** 3(20%) line officers, 10(16.9%) NCOs and 5(13.9%) PVTs have perceived the transportation plans are just participative. 3(20%) line officers, 11(18.6%) NCOs and 7(19.4%) PVTs stated that the transportation plans are fairy participative. Whereas 7(46.7%) line officers, 28(47.5%) NCOs and 19(52.8%) PVTs have argued that the plans are less participative. Only 2(13.3%) line officers, 10(16.9%) NCOs and 5(13.9%) PVTs assert that the transportation plans are not participative in any way.

The respondents bear out that there is less participations of employees in the planning process. Though some number of respondents believed that plans are just participative and fairly participative, none of the respondents said that the planning process is highly participative. There is somewhat difference in the respondents` response but not significant. However, more than half of respondents have witnessed the plans are less participative. And this indicates that the plans have considerable limitations in being participative.

The planning principle suggests that, participation of employees is very critical for the successful implementation of the plan. Otherwise with low participation of employees in the planning process, it is very difficult to sense of ownership among the employees. And hence the planning process of the Transportation Department is lacking a very important factor of its success

Concerning to the apportionment of plans in to terms, the results from the respondents reveal that the plans of the transportation service are broken down in to terms in some times.

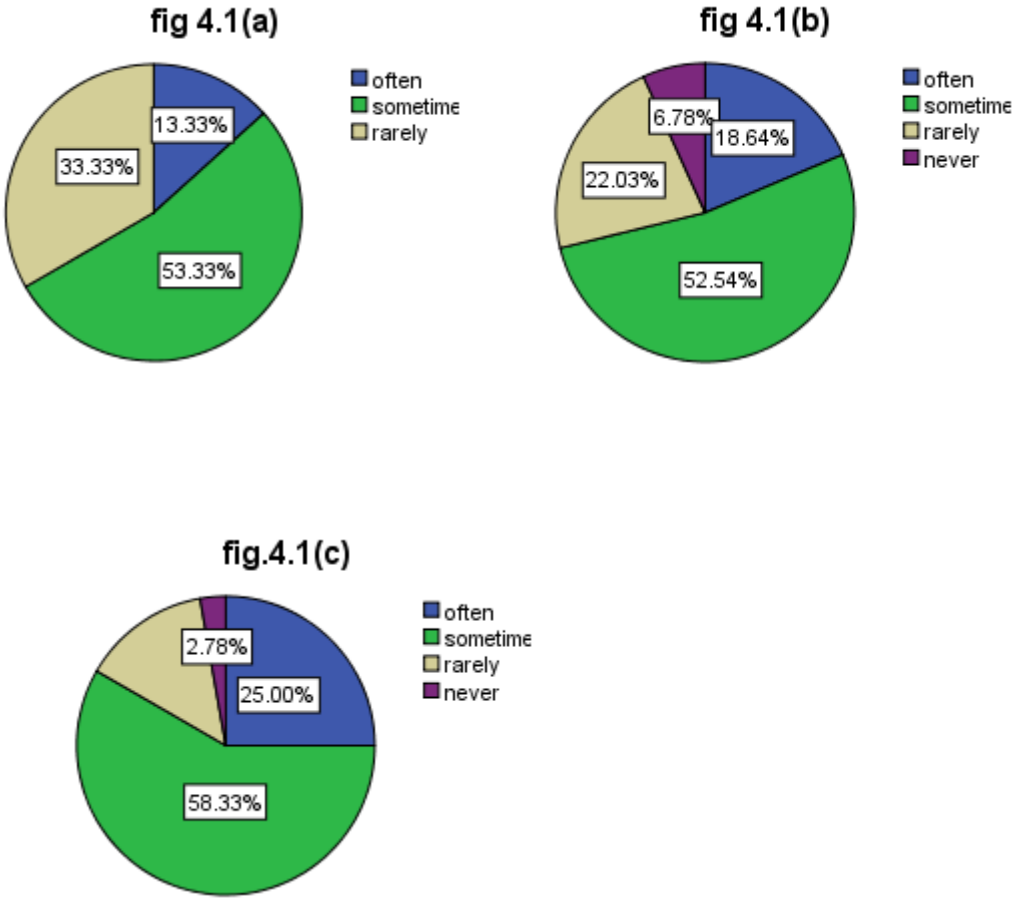


Figure 4.1 Apportionments of Plans.

Figure 4.1(a) shows that: 2(13.3%) line officers, 11(18.6%) NCOs and 9(25%) PVTs have point out that the plans of the transportation are often broken down in to terms. Whereas, 8(53.3%) line officers, 31(52.6%) NCOs and 21(58.3%) PVTs have indicated that the plans of transportation service are sometimes broken down in to terms, 4(26.6%) line officers, 13(22%) NCOs and 5(13.9%) PVTs said that the plans are broken down rarely. The remaining 1(6.7%) line officers, 4(6.8%) NCOs and 1(2.8%) PVTs said that the plans of transportation services are not broken down in to terms.

The results from the respondents reveal that the plans of the transportation service are broken down in to terms. More than half of respondents on average have perceived that plans are broke in terms in some times. In addition a number of respondents have said that,

plans are rarely broken down in to terms. Those who said plans are often broken down in terms are few. And none of the respondents said the plans are very often broken in to terms. This result indicates that the plans have fundamental limitations in their development. And the investigated plan documents ascertain those shortcomings.

Concerning to the appropriateness of planning process, the result suggests that, most of the members are not satisfied with the appropriateness of the plans. **Figure 4.2 a, b and c** shows that 3(20%) line officers, 9(15.3%) NCOs and 8(22.2%) Pvts have said that the plans of the transportation service are just appropriate; and 3(20%) line officers, 16(27.1%) NCOs and 8(22.2%) Pvts have said that the plans of the transportation service are fairly appropriate. While 8(53.3%) line officers, 34(57.6%) NCOs and 20(55.6%) Pvts have said the plans of the transportation service are less appropriate, only 1(6.7%) line officer has said plans of the transportation services are not appropriate at all.

The result suggests that, on average 55.2% of respondents have perceived less appropriateness of the plans. None of the respondents have said the plans are highly appropriate. But considerable numbers of respondents have said the plans are just and fairly appropriate. This indicates that the plans have fundamental gap in their appropriateness. The investigated plan documents of 2011, 2012, and 2013 also revealed that there are serious shortcomings in their settings. They show that the objectives are not well articulated in terms of SMART (specific, measurability, achievability, reality and time boundless).

Lit man (2007) in his title of planning principles also suggests that whenever plans are not appropriate with the desired objectives, there would be draw backs in the final ends. Hence it could be suggested that, the plans would be insignificant instruments in guiding the operational activities of the transportation department of the division.

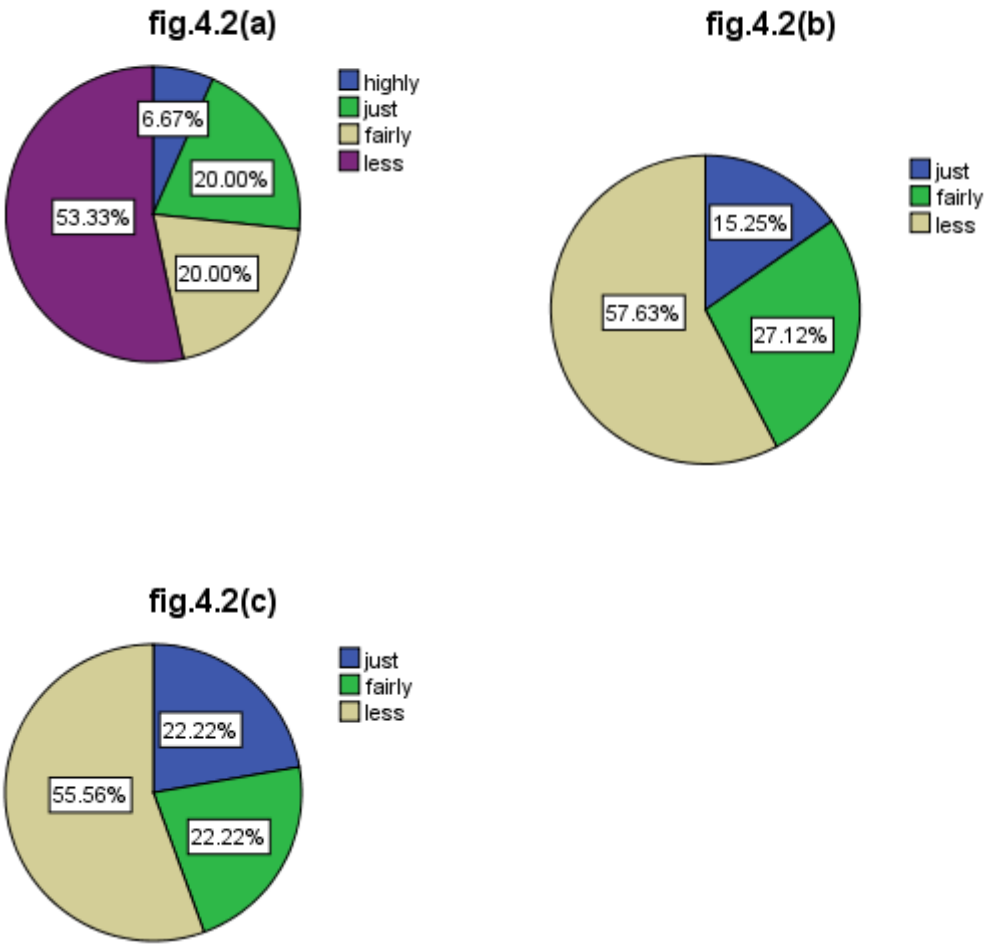


Figure 4.2 Appropriateness of the Plans.

The above results suggest that relatively large number of each stratum (the line officers, the NCOs and the privates) has the perception that the planning processes have considerable limitations in their development process with reference to the comprehensiveness, inclusiveness, informative, transparency and participative nature of the planning process. Apportionment of plans in to terms and appropriateness of plans are also having fundamental limitations in developing process of the transportation plans**.**

4.4 Operational Procedure and Implementation of the Planning

As can be seen from **Table 4.4** 4(26.7%) line officers, 18(30.5%) NCOs and 12(33.3%) Pvts have said that the plans of the transportation services are often operational; and 5(33.3%) line officers, 20(33.9%) NCOs and 15(41.7%) Pvts have said that the plans of the transportation services are sometimes operational. While 6(40%) line officers, 20(33.9%) NCOs and 9(25%) Pvts have indicated that the plans of the transportation services are rarely operational, only 2(3.4%) NCOs have said that plans of the transportation services are not operational at all.

In the cases of the implementation of the plans, the majority of the respondents attest that plans of the transportation service are operational rarely and in some times. Though about 30% of respondents on average said plans are often operational, none of the respondents have said plans are fully operational.

Table 4.4 operational procedure and implementation of planning

Characteristics	**Rate**	**Line officers**		**NCOs**		**Privates/soldiers**	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Operational of plans	Very often						
	Often	4	26.7	18	30.5	12	33.3
	Sometimes	5	33.3	20	33.9	15	41.7
	Rarely	6	40	19	32.2	9	25
	Never			2	3.4		
Coordination of services	Very often						
	Often	2	13.3	5	8.5	5	13.9
	Sometimes	6	40	26	44	16	44.4
	Rarely	6	40	20	33.9	14	38.9
	Never	1	6.7	8	13.6	1	2.9
Responsiveness of services	Very often						
	Often	1	6.7	4	6.8	3	8.3
	Sometimes	6	40	20	33.9	13	36.1
	Rarely	8	53.3	28	47.5	17	47.2
	Never			7	11.8	3	8.3
Flexibility of services	Very often						
	Often	2	6.7	6	10.2	4	11.1
	Sometimes	6	40	19	32.2	13	36.1
	Rarely	8	53.3	30	50.8	19	52.2
	Never			4	6.8		

Source: own survey, 2014

Those who said plans of transportation service are not operational at all are very limited in number. This response is unexpected response and it seems coming from negative

perception of respondents. Because the practice reveals that with their drawbacks plans are developed and implemented with regard to the transportation service deliveries. However, the above mentioned result indicates that the developed plans of transportation department have considerable limitation in being operational. But it doesn't mean that, the department is out of duty and deployment. As indicated in the focus group discussion meeting, the department is engaged in the very busy activities of delivering services. But it doesn't guide its activities by properly designed plans. According to the focus group member's opinion, the reason for the mismatch between the plans and their implementations is the weakness of the department. The planners of the department tried to overcome the plans by the events. The plans of the department are not proactive rather they are reactive. As a result there have been unnecessary wastages of energy, time and material resources. This is manifested by the fact that unnecessary and duplication of deployment of vehicles have observed.

Concerning to the coordination of the service delivery, the result suggests that, the majority of the members are not satisfied with coordination of the service deliveries. As indicated in **Table 4.5** 2(13.3%) line officers, 5(8.5%) NCOs and 5(13.9%) Pvts have said that plans of the transportation services are often coordinated in their implementation; and 6(40%) line officers, 26(44%) NCOs and 16(44.4%) Pvts have indicated that plans of the transport department are some times coordinated in the implementation process. While 6(40%) line officers, 20(33.9%) NCOs and 14(38.9%) have indicated that plans of the transportation service are coordinated rarely, the remaining 1(6.7%) line officers, 8(13.6%) NCOs and 1(2.8%) Pvts have indicated that the plans never coordinate in the implementation process.

The result suggests that, about three-fourth of the respondents said that plans of the transport department are coordinated sometimes and rarely with other planners in their implementation. The remaining respondents indicate that, on the one side they said transportation services are often coordinated and opposite to this some respondents have said that the implementation of the services are not coordinated at all. None of the respondents said the transportation service delivery fully coordinated. This indicates the plans have serious limitations regarding to coordination in their implementation.

This is also consistence with the data obtained from the personal interview and document surveys. The higher officers in their interview said that coordination problem is deep-rooted and serious problem of the transport department of the 6th Mechanized Division. Those shortcomings have acknowledged by the department. And the investigated plan documents ascertain those shortcomings.

Department of Defense (2002) in its pamphlet700-5 suggests that, whenever plans are prepared, complete coordination among planners is mandatory to ensure integrated support (see chapter 2). Constant coordination with the other staff planners on changes to the mission, commanders` concepts, assumptions, policies, principles, locations, and other elements are necessary to keep planning current. Principle of movement control also suggests that, coordination is critical to the success or failure of a transportation service delivery operation. The degree of coordination between different actors affects not only the efficient running of the operation but also the operation's overall effectiveness. In case of the 6th Mechanized Division's Transport Department plans there is deviation from the above theory. So highly and complete coordination in implementation of planning is crucial in delivering the transportation service. Otherwise, with low coordination of planning execution, it is very difficult to deliver proper transportation service. And hence the implementation process of the transportation department is lacking a very important factor in its success.

Respecting to the responsiveness of the transportation service delivery in its execution, the results of the respondents attests that plans of transportation services are rarely and sometimes responsive. As can be seen from **Table 4.4** 1(6.7%) line officers, 4(6.8%) NCOs and 3(8.33%) Pvts have indicated that the plans of the transportation services are often responsive; and 6(40%) line officers, 20(33.9%) NCOs and 13(36.11%) Pvts have said that plans of the transportation services are sometimes responsive in the implementation process. While 8(53.3%) line officers, 28(47.5%) NCOs and 17(47.22%) Pvts have indicated plans are rarely responsive, only 7(11.8%) NCOs and 3(8.33%) Pvts have said that plans of the transportation service are never responsive

The results of the respondents attested that, More than 80% of respondents from all groups of respondents rated the level of responsiveness rarely and in sometimes. None of the respondents said the transportation service deliveries are fully responsive. Those who said transportation service deliveries are often as well as never responsive are limited in number. However, the above result indicates that the transportation service deliveries have considerable limitation in their responsiveness. This is also consistent with what the practical experience tells. Annual evaluations which were conducted in 2012 and 2013 by the leadership and members the Sixth Mechanized Division indicate that there are delays in responding for urgent transportation demands such evacuating sick soldiers to medical centers and supplying rations.

Department of defense (2001) in its sub title of movement control suggests that, maintaining responsiveness military transportation service delivery in peace and war time continuously is very critical for successful implementation of transportation service delivery. Otherwise with rare or sometimes of responsiveness of transportation service delivery, it is very difficult to deliver timely service to combat units. And hence the transportation service delivery of the department is lacking very important factors in its success.

With the respect of the flexibility of transportation service delivery, the results indicated that, the majority of respondents from all groups of respondents rated the level of flexibility rarely and in sometimes. As can be noted from **Table 4.4** above 2(13.3%) line officers, 6(10.2%) NCOs and 4(11.1%) Pvts have said plans of transportation services are often flexible; and 6(40%) line officers, 19(32.2%) NCOs and 13(36.1%) Pvts have said plans of transportation service are some times flexible in their implementation. While 7(46.7%) officers, 30(50.8%) NCOs and 19(52.8%) Pvts have said plans of transportation service are rarely flexible, only 4(6.8%) NCOs have said plans of transportation services are never flexible in their implementation.

The results of the respondents indicated that, the majority of respondents from all groups of respondents rated the level of flexibility rarely and in sometimes. None of the respondents

said the transportation service deliveries are fully flexible. Those who said transportation service deliveries are often flexible are relatively limited in number. Only few respondents from NCOs have said transportation service deliveries are never flexible. However, the above result indicates that the transportation service deliveries have considerable limitation in their implementation regarding to flexibility. This is undisputable fact for the transportation department. This is also consistent with what the practical experience tells. Annual evaluations which were conducted for the past three years by the leadership and members the Sixth Mechanized Division indicate that there are many problems in conducting flexible deployments. Lack of flexibility with the changing environmental conditions is one of the drawbacks of the operators and the leaders of the transport department. department of Defense (2001) in its sub title of fluid and flexible movement suggests that, maintaining flexibility of military transportation service delivery in peace and war times continuously is very critical for successful implementation of transportation service delivery. Otherwise with rare or sometimes of flexible transportation service, it is very difficult to deliver timely service to combat units. And hence the transportation service delivery of the department is lacking very important factors in its success.

Concerning to the timely delivery of transportation service delivery, the results reveal that, most of the respondents are not satisfied with the timely delivery of transportation service.

fig.4.3(a)

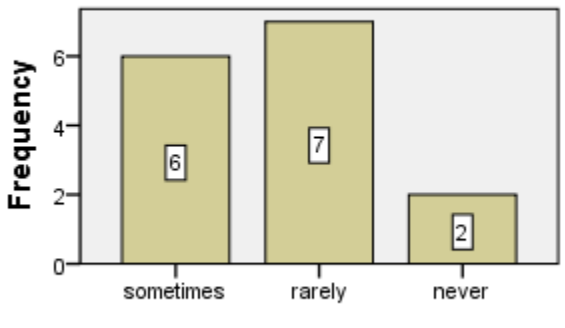
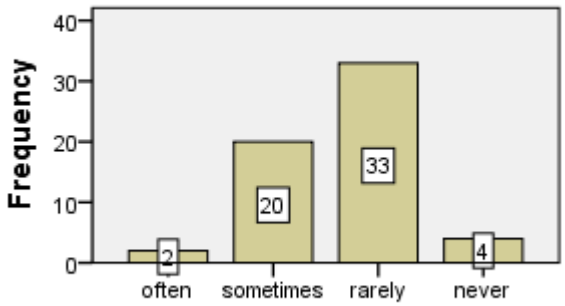


fig.4.3(b)



As can be seen from **figure 4.3 a, b and c** 6(40%) line officers, 20(33.9%) NCOs and 12(33.3%) Pvts have said that transportation service deliveries are sometimes timely in their implementation; and 7(46.7%) line officers, 33(55.9%) NCOs and 18(50%) Pvts have said that the transportation service deliveries are rarely timely in their implementation. While 2(13.3%) line officers, 4(6.8%) NCOs and 2(5.6%) Pvts have said the transportation service deliveries are never timely, only 2(3.4%) NCOs and 4(11.1%) Pvts have said the transportation service deliveries are often timely in their implementation process.

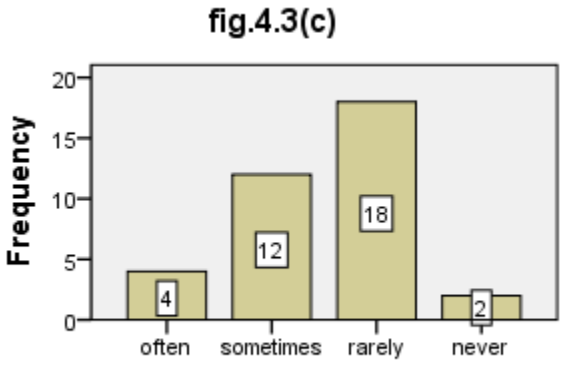


Figure 4.3 Timeliness of Transportation Service.

The results from the respondents reveal that, on average more than 80% the respondents have indicated that the delivery of transportation services are timely in sometimes and rarely; and about 10% of respondents have said the service deliveries are never timely. None of the respondents said the transportation service deliveries are very often timely. Those who said transportation service deliveries are often timely are very few in number and represents only from NCOs and PVTs. This indicates that the level of timely delivery of service has considerable limitation in mission accomplishment of units. This is also consistent with the data obtained from the comments of the respondents in replying to the open-ended questions.

Department of Army (2005) suggests that, whenever there are gaps in timely delivery of supplied items it would have difficulties in effectively mission accomplishment. As

indicated in the introduction part of this thesis, the success of force multiplying of an Army depends on the timely filling of unit equipment shortfalls. Shortages or late delivery of equipment due to transportation inadequacy can adversely affect the ability of a unit to train its personnel and to execute its assigned mission. And hence the transport department has a critical lack in timely delivery of transportation service.

The above results suggest that relatively large number of each stratum (the line officers, the NCOs and the privates) has the perception that the operational procedure and implementation of the transportation service deliveries have considerable limitations in their execution process with reference to the operational of plans, coordination, responsiveness, flexibility and timely delivery of services

4.5 Accessibility and Availability of Transportation Service.

Table 4.5 Accessibility and Availability of Transportation Services.

Characteristics	Rate	Line offices		NCOs		Privates/soldiers	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Accessible of service	Highly						
	Just	1	6.7	10	16.9	4	11.1
	Fairly	3	20	11	18.6	5	13.9
	Less	8	53.3	30	50	24	66.7
	Never	3	2	8	13.5	3	8.3
Availability of vehicles	Very high						
	High	5	33.3	18	30.5	12	33.3
	Fairly	8	53,3	32	54.2	20	55.6
	Low	2	13.3	9	15.3	4	11.1
	Very low						
Serviceable condition	Highly						
	Just	2	13.3	13	22	5	13.9
	Fairly	3	20	15	25.4	8	22.2
	Less	10	66.7	31	52.6	23	63.9
	Never						
Serviceable condition	Highly Just Fairly Less Never	 2 3 10	 13.3 20 66.7	 13 15 31	 22 25.4 52.6	 5 8 23	 13.9 22.2 63.9

Source: own survey, 2014

Table 4.5 shows that 1(6.7%) line officer, 10(16.9%) NCOs and 4(11.1%) Pvts have perceived that transportation service is just accessible with in the area of responsibility of the division; and 3(20%) line officers, 11(18.6%) NCOs and 5(13.9%) Pvts have perceived that transportation service delivery is fairly accessible to combat units. While 8(53.3%) line officers, 30(50.4%) NCOs and 24(66.7%) Pvts have perceived that the transportation service delivery is less accessible, the remaining 3(20%) line officers, 8(33.6%) NCOs and 3(8.3%) have perceived that the transportation service delivery is never accessible.

Regarding the accessibility of the transportation service, most of the respondents are not satisfied with the accessibility of the transportation service delivery. More than half of respondents have rated less accessibility of the service. None of the respondents have said the service is fully accessible. Those who said that the service is just accessible are very limited in number. And those who said the service is fairly accessible are also relatively limited in number. There is no significant difference among the groups of respondents in their opinion. This result also indicates that limitation of access is affecting the transportation service negatively.

Regarding to the availability of the vehicles most of the respondents seem satisfied with the availability of vehicles. As can be seen from **Table 4.5** 5(33.3%) line officers, 18(30.5%) NCOs and 12(33.3%) have indicated that vehicles are just available in the transport department; and 8(53.3%) line officers, 32(54.2%) NCOs and 20(55.6%) Pvts have indicated that vehicles are fairly available in the transport department. The remaining 2(13.3%) line officer, 9(15.3%) NCOs and 4(11.1%) Pvts have said that vehicles are less accessible in the transport department.

More than half of respondents said vehicles are fairly available; and about one-third of respondents said vehicles are just available. Those who said vehicles are less available are limited in number. Still there is no significant difference among the groups of respondents in their opinion. However this is inconsistence with the data obtained from focus group

discussion and personal interviews. The members of focus group discussion and higher officers in their interview indicated that the availability of vehicles comparing with the division's mission indicates shortage. The group members justify their idea by providing the following information: light tactical vehicles (4 wheeled vehicles), command cars and command and control vehicles are not available as per the need of the army. This is also acknowledge by the department and investigated documents of the transport department. Therefore the transportation services have considerable limitation regarding vehicle availability.

Regarding the serviceable conditions of vehicles most of the respondents are not satisfied. As can be noted from **Table 4.5** above 2(13.3%) line officers, 13(22%) NCOs and 5(13.9%) Pvts have indicated that there is just serviceable condition of vehicles in the transport department; and 3(20%) line officers, 15(25.4%) NCOs and 8(22.2%) Pvts have indicated that there is fairly serviceable condition of vehicles. The remaining 10(66.7%) line officers, 31(52.6%) NCOs and 23(63.9%) Pvts have indicated that the serviceable condition of vehicles in the transport department is less.

More than half of respondents have indicted that there is low serviceable condition of vehicles in the division. None of the respondents have said there is very high serviceable condition of vehicles. Those who said that the serviceable conditions are high and moderate are relatively limited in number. There is no significant difference among the groups of respondents in their opinion. This indicates that the serviceable condition of vehicles has considerable limitation in the division. This is also consistent with the data obtained from investigated documents of the transport department and interview results from maintenance department. The investigated documents of transport department indicated that from the total vehicles of the division about 30% of them are nonfunctional due to maintenance and maintenance related problems. The maintenance department in its part also justify the problem of serviceable condition of vehicles in replying the interview by saying that, logistical vehicles, command cars and armament carrier vehicles are waiting in garage due to lack of spare and component parts. This in turn affects the serviceable conditions of vehicles and the transportation service delivery in large.

As a result, exaggerated down time of vehicles is becoming common problem in the maintenance department. Department of Army (2008) in its Title of Maintenance Planning and Management in Transportation suggests that, Maintenance department shall develop and implement a maintenance management program to ensure that assigned motor vehicles are maintained in a safe and serviceable condition, by the most economical means possible to provide appropriate transport service. Otherwise serviceable conditions of vehicles of the transport department jeopardize. But the practical experience reveal opposite to the theory. However the serviceable condition of the vehicles in the division has considerable limitations.

Regarding to the road condition of the front, it seems disappointing for the respondents. **Figures 4.4 a, b and c.** show that 3(20%) line officers, 11(18.6%) NCOs and 4(11.1%) Pvts have indicated that the road condition of the front is moderately; and 7(46.7%) line officers, 17(28.8%) NCOs and 8(22.2%) Pvts have said there is poor road condition in the front. The remaining 5(33.3%) line officers, 31(52.6%) NCOs and 24(66.7%) Pvts have said that there is very poor road condition in the front. More than half of NCOs and PVTs said the road condition is very poor; about one-third of line officer respondents have also said the road condition is poor, about one-third NCOs and about one-fourth PVTs have indicated the road condition is poor.

fig.4.4(a)

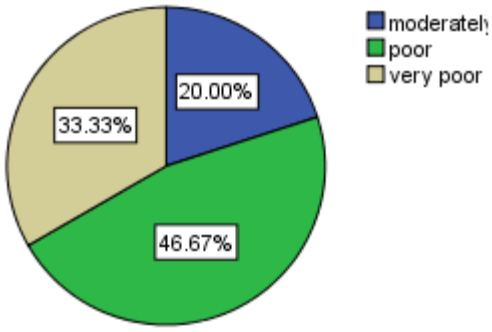
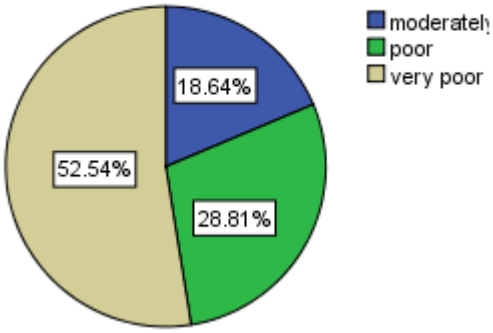


fig.4.4(b)



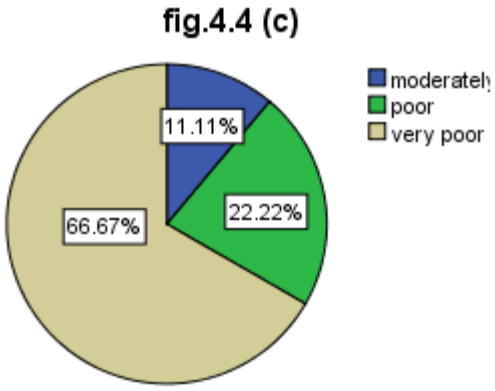


Figure 4.4 Road Condition of the Front

The remaining respondents have indicated that the road condition is moderate. None of the respondents have said the road condition is neither good nor very good. There is slightly difference among the groups of respondents in their opinion but it is not significant. So this result indicates the front has critical problem with regard to the road quality and transport service deliveries have been affecting by the poor quality of roads. This is also consistent with the practical experience tells. As indicted in the introduction part of this thesis, two-third of the total road of Bure front is the most difficult and bumpy road (see chapter one)

Managing transportation service suggests that, infrastructure deficiency is a critical problem in the operation of the transport and transportation service delivery performance. Increasing the amount of infrastructure available will improve the performance of transportation service delivery in general. It will give an opportunity to take the service closer to customer, it boosts up the quality of service and it enable the department to give timely transportation service, and make the system more reliable and satisfactory if well managed. The road infrastructures are not sufficient enough to satisfy the ever increasing demand and hence there is a need to increase the infrastructure available. The above results suggest that relatively large number of each stratum (the line officers, the NCOs and the privates) has the perception that the accessibility and availability of the transportation service with the exception of availability of vehicles, have considerable limitations in their

accessibility, availability and quality with reference to the accessibility of services, availability of vehicles, serviceable condition of vehicles and road conditions.

4.6 Quality of the leadership and staff members of the transportation department.

As demonstrated in **Table 4.6**, the result from the respondents reveals that the leadership of the department is less committed to solve problems faced in the way of implementing the plans of transportation service delivery. Accordingly, 3(20%) line officers, 4(6.8%) NCOs and 7(19.4%) Pvts have perceived that the leadership of the transportation department is just committed to solve the problems which are faced on the service delivery; and 3(20%) line officers, and 5(8.5%) NCOs have indicated that the leadership of the department is fairly committed to solve the problems. While 9(60%) line officers, 45(72.2%) NCOs and 23(63.9%) Pvts have said there is less commitment in the leadership to solve problems, the remaining 2(13.3%) line officers, 5(8.5%) NCOs and 6(16.7%) Pvts have indicated that the leadership of the transport department is not committed at all in solving the given problems.

The result from the respondents reveals that most members have perceived the leadership of the department is less committed. None of the respondents said the leadership is highly committed. Those who said that the leadership is just committed and fairly committed are the same number and percent. And there is no significant difference among the all groups of respondents in their response. This indicates that the leadership of the transport department has considerable limitation regarding to the commitment.

Table 4.6 Behaviors of the Leadership and Staff Members

Characteristics	Rate	Line offices		NCOs		Privates/Soldiers	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Commitment of leadership	Highly						
	Just	3	20	4	6.8	7	19.4
	Fairly	3	20	5	8.5	23	63.9
	Less	9	60	45	72.2	6	16.7
	never			5	8.5		

Discipline of members	Highly						
	Just			4	6.8	2	5.6
	Fairly	5	33.3	10	16.9	4	11.1
	Less	9	60	40	67.8	25	69.4
	Never	1	6.7	5	8.5	5	13.9
Willingness of members	Highly						
	Just			1	1.7		
	Fairly	8	53.3	32	54.2	25	69.4
	less	6	40	15	25.4	6	16.7
	never	1	6.7	11	18.7	5	13.9

Source: own survey, 2014

Department of Defense (2007) suggests the transport service performers` ability and commitment to achieve successful service delivery and the required material readiness is very essential. So, high commitment of leadership is very critical for the successful decision making and implementation of the planning processes. Otherwise, with low commitment of leadership it is difficult to solve problems which are faced in the implementation of the transportation service delivery. Hence, lacking commitment could be critical problem in the department in implementation of the transportation service delivery.

The disciplinary situation of staff members seems the most annoying behavior for respondents**.** As can be noted from **Table 4.6** 4(26.7%) line officers, 10(16.9%) NCOs and 4(11.1%) Pvts have indicated the members of the transportation department are fairly disciplined in performing their day to day activities; and 9(60%) line officers, 40(67.8%) NCOs and 25(69.4%) Pvts have said the members of the department are less disciplined in conducting their day to day activities. While 2(13.3%) line officers, 5(8.5%) NCOs and 5(13.9%) Pvts have said that the members of the department are not disciplined at all, only 4(6.8%) NCOs and 2(5.6%) Pvts have said the members of the department are just disciplined.

The result suggests that, most of the members are disappointed with the discipline of the staff members of the department. As a result, about two-third respondents have indicated that the members the department are less disciplined and not disciplined at all. None of the respondents said the members of the department are highly disciplined. Some respondents from all groups of respondents have perceived that the members of the department are fairly disciplined. Those who said that the members of the department just disciplined are only from NCOs and PVTs

and they are also small in number. This indicates that the members of the department have critical behavioral drawbacks regarding to the discipline. And this behavior in turn affects the service delivery negatively.

Comments which were given by the respondents in replying the open-ended questions also suggested that undisciplined behavior of staff members is becoming the bottleneck for the proper transportation service delivery. According to the justification of the respondents, the staff members especially driver are not disciplined because of the fact that the drivers have deceived their customers; and they gave priority for their personal benefit and misuse of vehicles is common problem of the drivers

Department of Defense (2001) in its sub Title of principle of movement control suggests that the discipline of transportation system plays an important role in the execution of service delivery. Discipline in the prompt return of transportation assets assures their availability for subsequent operations and avoids unnecessary cost and misuse of cost and misuse of vehicles. Otherwise with undisciplined behavior of employees, it is very difficult to execute the transportation service plans. And hence the department is lacking a very critical factor.

Concerning to the willingness of the staff members to serve their customers properly, respondents have satisfied as reveal in their response to the questionnaire survey. As indicated in **Table 4.6** 8(53.3%) line officers, 32(54.2%) NCOs and 25(69.4%) Pvts have indicated that the members have fairly willingness to solve problems they faced; and 6(40%) line officers, 15(25.4%) NCOs and 6(16.7%) Pvts have indicated that the members are less willing in solving problems they have faced relating to transportation service. While 1(6.7%) line officers, 11(18.7) NCOs and 5(13.9%) Pvts have perceived that the members of the department are not willing at all to serve their customers, only 1(1.7%) NCO has said that the members are just willing to serve their customer properly.

The result suggests that, most of the respondents are satisfied with willingness of the staff members of the transport department. About half of respondents from all groups of respondents have indicated that the staff members have fairly willingness to solve the problems they faced. Nearly half of respondents who are officers have said there is less willingness of staff members to solve the problem. The remaining respondents have said that some members are just willing.

While only one NCO said the members are not willing at all, none of the respondents said the members are highly willing. This indicates that the members of the department have moderately willingness but still there is considerable limitation regarding to the willingness.

According to the justification of the respondents, some drivers are not willing to solve the problems they faced because of the facts that, operators are not willing to guide by regiment commands in a changing situation and shifting conditions and priorities. And hence the department has behavioral limitations in its members; this in turn brings lacking of crucial factor in successful delivery of transportation service.

Regarding to the skills of the staff members, most of the members are satisfied with the skills of drivers. **Figure 4.5 a, b and c** shows that 6(40%) line officers, 25(42.4%) NCOs and 7(19.4%) Pvts have indicated that the staff members are just skilled in their profession; and 7(46.7%) line officers, 20(33.9%) NCOs and 28(77.8%) Pvts have said that the staff members are fairly skilled in their profession. While 2(13.3%) line officers, 10(16.9%) NCOs and 1(2.8%) Pvts have said the members are less skilled, only 4(6.8%) NCOs have said the members are just skilled.

The majority of the respondents have rated the skills of drivers fairly and above. Those who said the members have less skilled are insignificant in number. Even though slightly difference is observed it is also insignificant. The opinions from higher officers and comments on open-ended questions also suggest that the skill of the drivers is satisfactory.

fig. 4.5 (a)

fig.4.5 (b)

Figure 4.5 Skills of Staff Members

According to the justifications of the respondents the skills of the drivers is satisfactory because of the fact that, the department has conducted consecutive training programs as a result it achieve minimizing of car accidents. This indicates the department possesses a very critical factor to be success in its mission.

4.7 Performance control mechanism and over all customer satisfaction.

As conducted in **Table 4.7** the result from the respondents reveal that periodical review of plans did not perform as the required. Accordingly, 2(13.3%) line officers, 10(16.9%) NCOs and 6(16.7%) have indicated that periodical review of the plans are often performed; and (60%) line officers, 38(64.4%) NCOs and 22(61.1%) Pvts have indicated that periodical reviews of the plans are sometimes performed. And 4(26.7%) line officers, 11(18.7%) NCOs and 8(22.2%) Pvts have said that periodical reviews of plans are rarely performed.

The result from the respondents reveals that most members have perceived that periodical reviews of the plans are performed in some times. None of the respondents said the periodical reviews are performed very often. Those who said that periodical reviews are just performed are few. This indicates that the transport department is lacking critical factor to its success.

Regarding to performance control the result from the respondents reveals that, the department has low strength of performance control. As can be seen from **Table 4.7** 2(13.3%) line officers, 5(8.5%) NCOs and 2(5.5%)Pvts have indicated that the performance controls of the transport are just strong; and 4(26.70%) line officers, 22(37.2%) NCOs and 14(38.9%) Pvts have indicated that the performance control mechanisms are fairly strong. And 9(60%) line officers, 32(54.2%) NCOs and 20(55.6%) Pvts have said that performance control mechanisms are less strong. The result from the respondents reveals that, the department has low strength of performance control.

Even though the considerable number of respondents said that there is fairly strong performance control, none of the respondents said there is highly strong performance control. Those who said there is just strong performance control are limited in number. This indicates that the department has considerable limitation in performance control. This is also consistent with the data obtained from focus group discussion and personal interview. Accordingly, the interviewees from maintenance department have justify the idea by saying that, the department has low performance in controlling its transportation performance because of the fact that, the department couldn't able to enforced its operators to execute joint plan on preventive maintenance; and failed to take corrective actions. And these in turn bring-out unnecessary maintenance cost and thereby transportation service being jeopardize. The management theory of planning and control suggests performance control is the most critical element of the Army Transportation system.

Table 4.7 performance control mechanism and customer satisfaction.

Characteristics	Rate	Line offices		NCOs		Privates/ Soldiers	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Periodical review	Very often						
	Often	2	13.3	10	16.9	6	16.7
	Sometimes	9	60	38	64.4	22	61.2
	Rarely	4	26.7	11	18.7	8	22.2
	never						
Performance control	Very high						
	high	2	13.3	5	8.5	2	5.5
	Fairly	4	26.7	22	37.2	14	38.9
	Low	9	60	32	54.2	20	55.6
	Very low						
Participation of members	Very high						
	high	1	6.7	8	13.6	3	8.3
	Fairly	6	40	22	37.2	14	38.9
	Low	8	53.3	29	49.2	19	52.8
	Very low						

Source: own survey,2014

Performance control demonstrates how well the transportation system is doing its job of meeting setting goals and expectations of the transportation network. It is a way to gauge the impacts of the decision making process on the transportation system. Performance controls aim to answer questions about whether the performance of the transportation system is getting better or worse over time; and whether transportation investments are correlated or linked to stated goals and outcomes. There fore the performance of the department is against the theory. Thus, it is very difficult to achieve the objectives of the transportation service delivery plans. And hence the department is lacking a very critical element for its success in its service delivery and has lack of controlling power over its performance.

Regarding to the participation of members in performance evaluation, respondents have attested that, there is low participation of members in evaluations of the planning performance. As can be seen from table 1(6.7%) line offices, 8(13.6%) NCOs and 3(8.3%) Pvts have indicated that members of the department are just participant in the evaluation process; and 6(40%) line officers, 22(37.2%) NCOs and 14(38.9%) Pvts have said that members of the department are fairly participant in the evaluation process. While 8(53.3%) line officers, 29(49.2%) NCOs and 19(52.8%) Pvts have said that the participation of members is less.

This is also consistent with the data obtained from focus group discussion. The management theory of planning suggests participation of staff members in evaluation is very crucial for the successful implementation of the plan. Participation or public involvement is integral to good transportation planning. Without meaningful public participation, there is a risk of making poor decisions, or decisions that have unintended negative consequences. With it, it is possible to make a lasting contribution to an area's quality of life. Public involvement is more than an agency requirement and more than a means of fulfilling a statutory obligation. Meaningful participation is central to good decision-making. Thus the performance of the department compare with the theory is contradicting. Thus it could be very difficult to correct deviation between plans and actual performances, and it could be lead to wrong decision.

Regarding to overall customer satisfaction the results indicate that the respondents are not satisfied with the transportation service deliveries. Figure shows that 2(13.3%) line officers, 5(8.5%) NCOs and 4(11.1%) have perceived that there is fairly customer satisfaction on the transportation service delivery; and 8(53.3%) line officers, 45(76.3%) NCOs and 28(77.8%) Pvts have perceived that there is less customer satisfaction over the transportation service delivery; and 5(33.3%) line officers, 9(15.2%) NCOs and 4(11.1%) Pvts have perceived that there is no customer satisfaction at all

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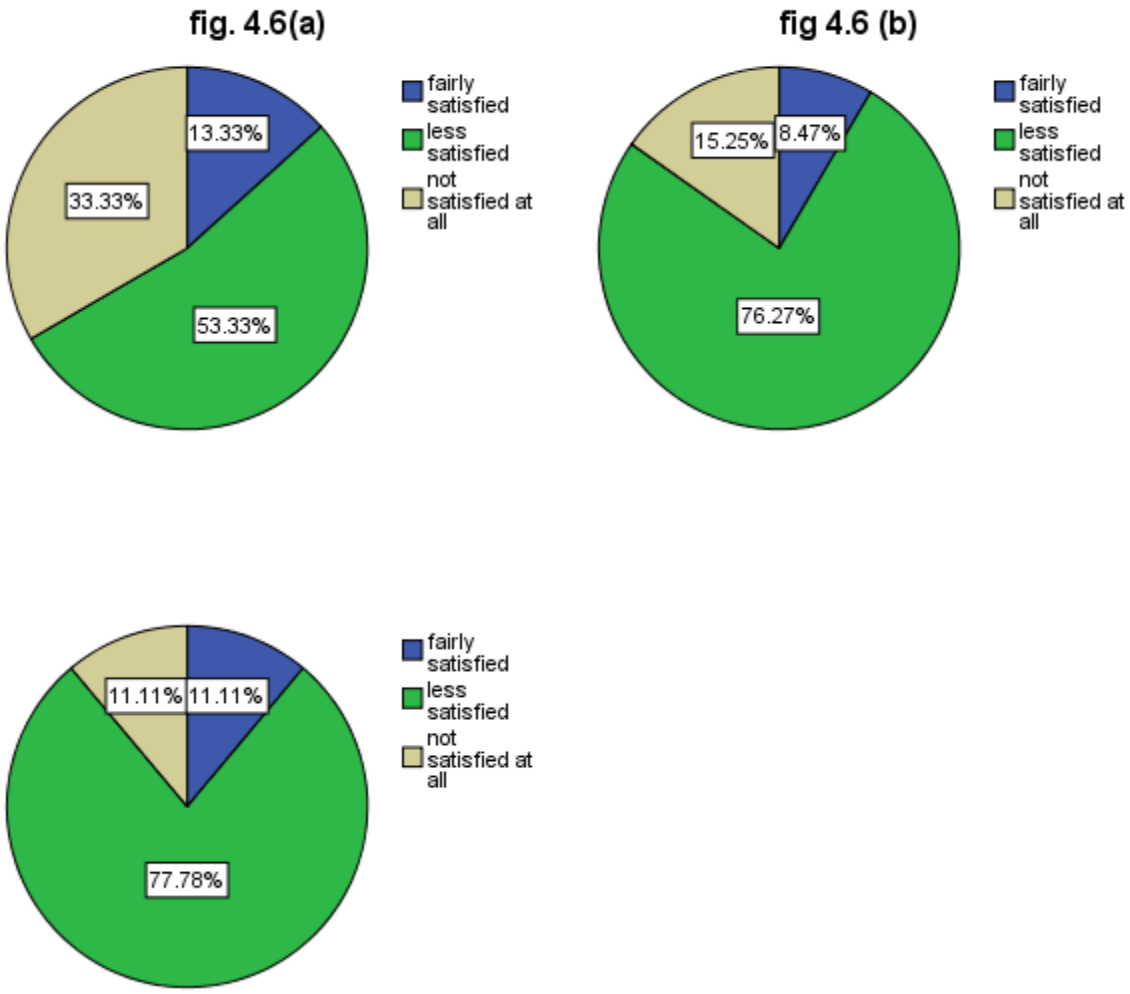

Figure 4.6 Customer Overall Satisfactions

In general the service of the Transport Department is not satisfactory for its users. From the customers' perspective, the essential conditions for transportation service are not fulfilled. The three main complaints of the customers which were identified from response of open-ended question were insufficient service delivery, non-serviceable conditions of vehicles and lack of readiness for movement. They have said these problems mainly arise due to poor operational management. These problems have also acknowledged by the department. This is also consistent with the data obtained from personal interview of higher officers. And this is also with the practical experience that can be seen in each location. The investigated documents, daily, weekly, monthly and annually reports of regiments also

revealed that there were a lot of grievances and recommendations regarding to transportation services especially with connected to water supply, fire wood and sometimes food items which were delivered to users in lately manner. Despite the increasing demand for the service particularly in locations (Regiments), the department could not fulfill all service requirements currently due to resource, management and environmental constraints.

The above results attested that considerable large number of each stratum (the line officers, the NCOs and the privates) has the perception that the Performance control mechanism and overall customer satisfaction have fundamental gaps in their implementation process with reference periodical review, performance control, participation members in performance evaluation, and overall customer satisfaction.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Conclusions

In this study an attempt have been made to look into the features of planning and implementation process of transport service delivery in the Ethiopian Army; the Sixth Mechanized Division of Bure Front. Special emphasis was given to the deployment planning problem (DPP), which refers to the problem of the planning of the physical movement of military units, stationed at geographically dispersed locations, from their bases to their designated destinations. For this purpose relevant primary and secondary data have been collected and analyzed. From the investigations the data the findings drawn are summarized in the following paragraphs.

The transport department of the 6^{th} Mechanized Division measures its service activities and performance based on its planning and implementation process that is prepared and conducted in different period of times. However, the planners and their subordinates have considerable limitation on knowledge of strategic directions of the planning process and its implementation. These include mission, vision, goals and objectives as well as the overall planning process of the transportation service. Despite the fact that the plans are prepared in the beginning of each budget years, they are not broken down in to terms. Serious attentions are not given to prepare monthly and quarterly plans and to evaluate their implementations. Transparency and participation which are considered as very critical factors for the implementation of the plans are lacking in the planning processes and as a result employees encounter difficulties to internalize the plans and to develop sense of ownership.

Moreover, the plans of the transport department have considerable limitation in fulfilling important requirements for the planning process. Logistical items to be moved and the resources needed for their movement are not determined a priori. Tradeoffs between

requirements and available resources are not defined and priorities are not set accordingly. This indicates that the aforementioned drawbacks of planning process are worsened by lack of technical ability of the planners which make the final ends of the plans be unsatisfied. Consequently, the plans of the transportation department lack appropriateness to achieve the desired goals and objectives.

Currently the transport department service is constrained because of a number of factors. Poor physical infrastructure in Bure Front is one constraint for the transportation service of the Division. The total road infrastructure in the front is found in its low level. From the total distance of 240 km - extend from the Headquarter of Semera to Bure - only 75 km of it is asphalted. The remaining 165 km road is very bumpy and inconvenient for movement.

The quantity and quality of the available vehicles are the other factors that determine the efficiency of the transportation service. From the total of 107 vehicles more than 30% of them are not functional due to the shortage of spare and component parts. These problems together with the poor allocation of resources hinder the plan to be operational. Lack of coordination in the implementation of the plan is a deep-rooted problem of the Transport Department. Moreover, lack of flexibility and responsiveness with the changing environmental conditions is one of the drawbacks of the operators and the managers. These problems mainly arise due to lack of managerial ability of the Transportation Department of the 6th Mechanized Division. The service is thus not satisfactory from a customer perspective.

Some of the apparent inefficiencies and low performance of the plans are due low commitment of the Transportation Department leadership, undisciplined behavior of the drivers, lack of willingness to solve the existing problems and misuse of government properties. Problems in coordination, controlling and scheduling are also additional setbacks. On the other hand, the increasing demand for transportation service due to unique geographical location, tough climatic conditions and continuous tasks is increasing the pressures on the department. Thus opportunities for improvements should be identified and implemented to tackle the problems of the department and thereby make the service attractive and satisfactory for the customers

5.2 Recommendations

This research work has investigated the current planning and implementation systems and processes of transportation service delivery of the Sixth Mechanized Division. It has identified major deficiencies, their causes and the resulting consequences. Hence, based on the findings, the following possible remedial measures could be recommended for future improvements. From the findings above the recommendations are summarized in to two groups. The first presents recommendations for the planning process and the second part refers to the implementation.

5.2.1 Recommendations for the Planning processes.

Capacity building and training to the staff of the Transport department can be a solution to some problems particularly knowledge of strategic directions. but the capacity building should be based on position and responsibility of the members. Capacity building for the leadership and administrative staff members is better if focused on planning, coordinating, scheduling and assignment, and controlling. But the capacity building and training for operational staff or drivers needs to be focused on awareness enhancement on strategic directions of the defense forces and their relationship to respective operational performance, customer handling and material handling principles. Besides, the training for leadership should focus on enhancing management skills to develop participatory and proactive planning process, strategic planning, monitoring and evaluation, and adoption of self-regulated behavior.

Finally, transportation planners, operators, and users need exercise self-discipline in meeting the goals and objectives of the organization

5.2.2 Recommendations for Service Implementation

Efficient resource allocation can be a solution to maintenance and maintenance related problems particularly shortages of spare parts and component parts. While having to spend large sums of money for acquisition and maintenance, availability alone does not guarantee smooth operation unless supplemented with carefully worked-out deployment plans. In this regard, plans needed to be executable and operational in flexible and responsive manner. And it will be better to give special attention to transportation infrastructure in order support the movement of both transportation assets and items with respect to physical characteristics and unique geographical set-up of the front.

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Annex A. Questionnaires

Mekelle University

College of Business and Economics

Department of Management

MBA Program

Introduction

This questionnaire is designed for conducting research on planning and implementation of transportation service delivery in the 6th Mechanized Division in Bure Front, for the partial fulfillment of the requirement of MBA degree.

I want to extend my appreciation for your cooperation to look up the questionnaire seriously, and giving your precious time to answer the questions. I want to assure you that this questionnaire is for academic purpose and your personal answers are to be held strictly confidential.

Thank you

General Instruction

The questionnaire is organized in to three main parts. These are questionnaires for line officers and noncommissioned officers/private, focus group discussion questions and interview check list for both higher officers, Transport Department Office and Maintenance Department Office.

Please indicate your choice by encircling the letter of your choice where you think is appropriate to each preference and comment where necessary. And give detail answers for questions which are provided in the interview check list and focus group discussion.

Enumerator's name…….signature…….date……

I Questionnaires to be Filled by Respondents

1.1 Demographic Characteristics

Please choose the appropriate answer for the following questions regarding your demographic data.

1. Sex
   a) Male
   b) Female
2. Age in years
   a. 25 years and below
   b. 26-35
   c. 36-45
   d. 46-55
3. Educational Qualification
   a. Below grade 10^{th}
   b. Certificate (TVET)
   c. Diploma
   d. Bachelor Degree and above
4. Rank
   a. Line Officer
   b. noncommissioned officer
   c. private/ basic soldier

1.2 Knowledge of strategic directions

Instruction

Please choose your appropriate answer for questions provided below by encircling the letter of your choice.

1. How do you evaluate your knowledge about the mission of their organization?
   A. Very high
   B. High
   C. Moderate
   D. Low
   E. Very low

2. What do you think your understanding of the employees on the vision of the organization?

A. Very high
B. High
C. Moderate
D. Low
E. Very low

3. How far do you know the goals of the organization?

A. Very high
B. High
C. Moderate
D. Low
E. Very low

4. How far do you know the objectives of the organization?

A. Very high
B. High
C. Moderate
D. Low
E. Very low

5. How do you evaluate your knowledge on the over all planning process?

A. Excellent
B. Very good
C. Good
D. Poor
E. Very poor

1.3 planning process of the transportation service delivery

6. How far are the plans comprehensive in their development process?

A. very high
B. high
C. fairly
D. low
E. very low

7. How far are the plans inclusive in their development process?

A. very high
B. high
C. fairly
D. low
E. very low

8. How informative are the plans to their users?

A. highly informative

B. just informative
C. fairly informative
D. less informative
E. never informative

9. How transparent are the planning processes to the service recipients?
   A. highly transparent
   B. Just transparent
   C. Fairly transparent
   D. Less transparent
   E. Never transparent

10. How participative are the plans in their development?
   A. Highly participative
   B. Just participative
   C. Fairly participative
   D. Less participative
   E. Never participative

11. Are the plans broken down in to terms of semiannual, quarterly and monthly?

   A. very often
   B. often
   C. sometimes
   D. rarely
   E. never

12. How appropriate are the transportation plans in relation to their objectives?
   A. highly appropriate
   B. just appropriate
   C. fairly appropriate
   D. less appropriate
   E. not appropriate at all

1.4 **Operational Procedure and Implementation of the Planning Process**

13. How far the plans are put in to operation on the ground?
   A. Very often
   B. often
   C. sometimes
   D. rarely
   E. Never operational

14. How far the service deliveries are coordinated in their implementation?
   A. very often
   B. often
   C. sometimes
   D. rarely
   E. never

15. How often the transportation services are responsiveness for urgent demands of users?

A. very often
B. often
C. sometimes
D. rarely
E. never

16. How far are the plans flexible enough in their implementation to meet changing demands?

A. Very often
B. Often
C. Sometimes
D. Rarely
E. Never

17. How timely are the transportation service deliveries in their implementation?

A. Very often
B. often
C. sometimes
D. rarely
E. Never

1.5 Accessibility and Availability of Transportation Service

18. How far are accessible the transportation service deliveries?

A. highly
B. just
C. fairly
D. less
E. never

19. How do you evaluate the availability of vehicles regarding to the service?

A. very high
B. high
C. fairly
D. low
E. very low

20. How do you evaluate the serviceable condition of vehicles?

A. highly
B. just
C. fairly
D. less
E. never

21. How do you evaluate the road condition of the front?

A. very good
B. good
C. moderate
D. poor
E. very poor

1.6 Qualities of the leadership and staff members of the transport department

22. How do you evaluate the commitment of the transport department leadership in implementing the plans?

A. highly committed
B. just committed
C. fairly committed
D. less committed
E. never committed

23. How do you evaluate the discipline of staff members in relation to implementing of the plans?

A. highly disciplined
B. just disciplined
C. fairly disciplined
D. less disciplined
E. never disciplined

24. How do you evaluate the willingness of staff members of the transport department to solve problems?

A. highly
B. just
C. fairly
D. less
E. never

25. How do you evaluate the skills of drivers in their profession in relation to implementing the plans?

A. highly skilled
B. just skilled
C. fairly skilled
D. less skilled
E. not skilled at all

1.7 Performance Control Mechanism and Users Satisfaction

26**.** How often periodical review of plans are conducted?

A. very often
B. often
C. sometimes

D. rarely
E. never

27. How do you see the strength of performance control systems in the planning process?
A. very high
B. high
C. fairly
D. low
E. very low

28. How do you evaluate the participation of members in evaluating the implementation of the plans?
A. very high
B. high
C. fairly
D. low
E, very low

29. How do you perceive the satisfaction of service users on the transport service delivery?
A. highly satisfied
B. just satisfied
C. fairly satisfied
D. less satisfied
E. not satisfied at all

1.8 Open-ended Questions

1. Would you explain the achievements, strengths, and weakness of transportation service delivery?

Achievements.....
……
……
……
……

Strengths……
……
……
……
Weaknesses……
……
……
……
……

2. How do you evaluate the combat readiness of the division?
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……

……
……

3. Please state the major challenges faced in planning and implementation of transportation service……

……
……
……
……

4. Please write-down any additional comment you would like to suggest.
……
……
……
……

Annex B. Questions for focus group discussion

III. Questions for Focus Group Discussion

1. How do you evaluate the planning process of transportation service in the 6th Mechanized Division in Bure Front in the past three years?

Pleas elaborate your answers in terms of:

a. Comprehensiveness of the plans

b. Inclusiveness of the plans

c. Informative nature of plans

d. Transparency of plans

e. Participative nature of plans

2. What do you think of the execution of the plan appropriately?

Please consider the following points:

a. Appropriate allocation of resources

b. Mobilization of man power

c. Direction in application of the plan

d. Periodical reviews and taking corrective measures

e. Conducting critical evaluation

3. How effective is the transportation service for the mechanized Division in accomplishing its mission?

Please refer to the following points in answering this question:

a. Timeliness of the service delivery

b. Appropriateness and competence of the service to the task

c. Coordination of transportation unit with other staffs

4. How far is the transportation service accessible and responsive to combat units?

5. Please identify the most urgent and critical problems to the transportation service.

6. What do the division do you suggest to solve the problems?

Annex C. Interview checklist

IV. Interview checklist used with higher officers

1. How do you evaluate the skills of the planners of the transport department in developing the plans?

Please elaborate your answers in terms of the following

a. accurately, critically, and objectively evaluate problems

b. apply general concept to specific situation

c. communication

2. How requirements are determined in the planning process?

a. determine requirements

b. determine capabilities

c. balancing requirements against capabilities

d. coordinating

3. How do you evaluate the accessibility of transportation services?

: Please elaborate your answers in terms of the following

a. Availability of vehicles
b. Infrastructure and road conditions
c. Serviceable condition of vehicles
d. Location of transport unit and supply bases

4. How users are satisfied from the service delivery?

V. Interview checklist used with transport department office?

1. How do you evaluate your planning activities?

Please elaborate your answers in terms of the following:

a. detail action plan
b. transportation schedule
c. vehicle downtime plan

2. How do you evaluate the awareness of staff members on objectives of the plans, directives, and rules and regulations?

3. do you think of users are fully informed about the transportation service plans?

VI. Interview checklist used with maintenance department

Does preventive maintenance conduct by drivers as per the rule?

If no, what is the reason for this failure?

What corrective measures does the department take to correct the failure?

How repair maintenance is performed?

Are spare and component parts available adequately?

If no, what are the possible reasons?

How far have the department been supported by adequate budget?

If no, what is the reason?

What do you think of about the combat readiness of the division?